

TWENTIETH CENTURY EDUCATION

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TWENTIETH CENTURY EDUCATION

RECENT DEVELOPMENTS IN AMERICAN EDUCATION

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Editor



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To Edward

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P R E F A C E

Education is always a subject of popular criticism. This is embarrassing to educators only when it comes from ill-informed sources, or from manipulators of opinion whose motives are questionable. Fair criticism is welcomed by educators as a sign of healthy interest in the great work of the schools, and is recognized as a wholesome evidence of democracy. The present time is especially productive of the desirable type of criticism, for we are "between two worlds" and people with faith in education are anxious that the schools measure up to their responsibilities.

And these responsibilities are indeed impressive. We have witnessed within a few years' time the crumbling of nations, the rending of governments, and the dissolution of what an abortive history had evolved in trying to produce a world order. We have seen old doctrines and old alignments shattered, and have turned with hopeful minds to a new view of the world and our place in it. There have been crucial moments in the course of civilization when vast forces have met and their resolution has shaped events for unborn generations. This is such a moment. But now, in the middle of the twentieth century, we hope we are wise enough to guide events with knowledge and resources unmastered in the past. We believe that education must play a major part in this important strategy. For this reason we must expect and invite a widespread attention to what educators are thinking and doing.

The present volume is presented as a contemporary and authoritative survey of education in its various aspects, with the hope that it will prove helpful to students and thoughtful people who want a view of the whole picture. It has been especially prepared as a basis for critical appraisal. The editor has entertained no desire to convert the reader to his own or any philosophy. On the contrary, it has been his purpose to reveal all of the disparity that prevails as well as the solid foundations that have been built. It appears that there is too much confusion in the thinking of educators, that is something the public should know. On the other hand, if the trend of a truly American scheme appears in these chapters, as the editor believes, then let those who join in the leadership of our democracy strive to strengthen it in the cause of a peaceful and better world.

The editor owes a debt of gratitude to the group of writers who have contributed to this volume. Their cooperation has made the compilation a pleasure, and because of their scholarly efforts it is possible to issue the work with confidence and pride.

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San Francisco, California

CHAPTER I

INTRODUCTION

AMERICAN EDUCATION TODAY

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Among the liberals of the early republic was born the idea of education for all. This was a daring thought. But education for all at public expense, tax paid, was revolutionary. Proposals so radical do not fall like manna upon a people already hungry for them. They strike a tumult of resistance. The voices of offended tradition are hurled against them. They encounter the indignation of the privileged classes and the fear of unholy change among the timid. Above all, they must come to grips with the single-minded logicians of the tax rate.

Against these obstacles the battle for free education has been fought. It might be said, the battle has been fought and won. There are still pockets of resistance, it is true; but the twentieth century finds our free school system founded and secure. The schools have become a part of our life. They are the common meeting ground where the lasting ties of our social being are knit. They are a center of community sentiment and interest and are in closest relationship with the home. There is a cohesive function in public education that permeates the whole body of society and contributes greatly to its togetherness and unity. The institution of the school stands in classic equality with the institutions of home and church; but while we hear much of the growing instability of the home and the uncertain

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holding power of the church, we observe the ever increasing scope of education as a central institution of our common life.

It is inevitable that a public enterprise like education should be much in the thinking of the American people. Most of our homes are immediately involved because their children or their grandchildren are in the schools, and where the children are concerned there is an interest that nothing can exceed. The people want their children to be educated because it is socially desirable for the children's sake, and because there is an economic advantage in education. There is at the same time a strong motive of pride upon the part of the parents. These same feelings and considerations extend beyond the home and become a characteristic of the community, for the community itself partakes of the parental impulse. This is a public sentiment to be proud of, but it is no vaporous sentiment for it is convincingly substantiated with money and deeds.

The community is moved, at the same time, by a more practical purpose. This is the recognition of education's predominant responsibility in the training of citizens. We are even inclined to an exaggerated view of this fact and a disposition to charge the schools with failures that are due to home conditions and to economic and social factors. The truth remains that the schools are our mighty remedy, and they are the business of all who desire a good government and a good society.

It is no wonder that most people have ideas about education. We may agree that it is a wholesome thing that they do. At the same time, it is rather unfortunate that their ideas upon the subject are so largely without benefit of knowledge. The layman is seldom aware of the perplexing problems that lie beneath the surface of what seems to him an obvious and simple business. Here, as in all matters of public concern, it would be far better if people were well informed. This is a reasonable wish, for there are many well established facts and there is much substantial theory in education, and a general understanding of these would be a worthwhile asset.

It must not be supposed, however, that the educators

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themselves are in complete accord either in their interpretation of facts or in their theories. There is a sufficient accord, obviously, to permit a continuing operation of the public schools; and there is a sufficient understanding of basic principles in many school systems to assure a high degree of success. But at the same time it is evident to all that education, like politics and economics, supports a diversity of beliefs and a contentious variety of doctrines. Let no one imagine that there is either an orthodox philosophy or a single platform of ideas. In planning the present volume the editor had to choose between a selection of topics that would present an arbitrary unification of educational thought, and a selection that would present a cross-section. The choice was in favor of the latter alternative.

Public Education in Figures

For the citizen of this country it is wholesome food to contemplate some of the pertinent statistics of public education. The fact that a huge and continuous stream of young humanity is pouring through our schools is one of those remarkable phenomena that we take for granted. But let us look at the numerical facts.

In 1940, one out of every five of the population of continental United States was enrolled in a public elementary or secondary school. The total number was 25,433,542.¹ In addition should be counted 2,611,047 pupils in private and parochial schools of the same grades.

Serving the public elementary and secondary schools is an army of 875,477 teachers. On the financial side we find a total expenditure for 1940 of \$2,344,049,000. This sum, though dwarfed by the fantastic costs of the war, represents the biggest peacetime business in our land.

But while these gross figures are impressive, it is desirable to break them down in various ways to get a true picture. One significant fact is the declining elementary school enrollment as computed against the total population. In continental United States the percentage in kindergarten and elementary schools for the year 1900 was

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21. This fell to 19 per cent in 1930 and to slightly more than 15 per cent in 1940. This striking decline in relative numbers is a reflection of the falling birth rate in the present century. The economic depression which began in 1929 gave impetus to the tendency, as is shown in the enrollment figures for 1940.

When we turn to secondary school enrollments, however, we discover a progressive and extraordinary increase. In absolute numbers, and including public, private, and parochial schools, the enrollment of children 14 to 17 years of age inclusive rose from 695,903 in 1900 to 7,113,282 in 1940. This represents for the age group an increase from 11 per 100 in 1900 to 73 per 100 in 1940. Sociologically this is a most significant development. It not only signifies an astonishing upward movement in the average level of education, but reflects most important changes in living standards, economic conditions and cultural attitudes.

Turning from secondary to higher education, we find a similar trend. In the more favored sections of our nation it appears that attendance at college or some institution of higher or technical education is the usual thing among our youth. Far more young people, proportionately, are entering college than entered high school early in the century. In 1900 the number enrolled at institutions of higher learning was 237,592, or .31 of one per cent of the entire population. By 1940 the total had risen to 1.13 per cent of the population, or to a proportion about three and two-thirds greater.

These great movements of youth into secondary and higher schools have presented many problems to our educators. This is particularly true with regard to the secondary schools. Early in the century these were operated chiefly as college preparatory schools and their curriculums were conceived accordingly. They commonly assumed that pupils who could not "make the grade" would drop out, and supposedly that was as it should be. But now, with the secondary schools becoming common schools for all, the situation is completely changed. Curriculums and courses of instruction must now be designed for pupils hav-

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ing every variety of academic intention and those having none at all; and instruction must be accommodated to a great range of abilities. There has arisen a moral obligation to give these pupils whatever instruction is best suited to their talents and capacities, and with this is the legal obligation of the compulsory attendance laws. Guidance becomes a major and necessary function.

Similar problems arise from the increasing ratio of attendance at the colleges. Here we find the situation modified by the establishment of a junior college in many communities. The conditions compel a reconsideration of the functions of higher education. Early in the present century the traditional purposes of college education were seldom challenged: students attended college to be educated in a higher profession, and frequently for the purpose of securing a socially coveted "culture" which the liberal arts were supposed to bestow. But the expansion of college attendance inevitably opens the question of extending the practical services of the college and liberalizing the original conceptions of higher education. While pressure is brought to introduce new kinds of usefulness, there arises also a widespread determination to make what we call "liberal education" more effective for American society and for world society in an industrial age.² These problems are remaking our colleges, but in various and contrasting ways according to the diverse philosophies of those who guide their policies.

The over-all figures which show the scope and growth of education in the United States must be read with a proper understanding. As presented above, these figures are for the nation as a whole. We get a disturbing picture, however, when they are broken down sectionally or by states. We then find a great disparity in the quality and amount of education provided.³

There is a marked difference among the states in the amount spent per pupil for the current expenses of public elementary and secondary schools. In 1939-1940 the lowest state, Mississippi, spent only \$24 per pupil, while New York, the highest, spent \$135. Five states spent \$100 or more per pupil, while eleven states spent less than \$50 and

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five states less than \$35 per pupil. The twelve lowest states are in the South.

Good schooling requires adequate housing. This is generously provided in some states, but in others the buildings are commonly overcrowded, obsolete, and poorly constructed. Latest reports show that the value of public elementary and secondary school property per pupil enrolled ranges from \$81 in Tennessee to \$526 in New York. Six states show a value of more than \$400 per pupil while in four others the figure is less than \$100. All of the fifteen lowest states are in the southeastern, south-central, or southwestern part of the nation.

The simplest of economic laws operates to secure good teachers where salaries are good and to eliminate them where salaries are low. This is a critical consideration when we find the average annual salary of public school teachers, supervisors, and principals ranging from \$559 in Mississippi to \$2604 in New York (1939-40). Seven states paid less than \$800, on the average, while ten states paid more than \$1600.

Another significant comparison is found in the average number of days in the school year. For 1939-40 this was 174 days for the nation as a whole, but in Mississippi it was about 146 while in Maryland it was about 187. In the rural schools of Mississippi the average for 1937-38 was but 136 days. Thirteen states operate their schools for at least nine months while four states operate for less than eight months, according to 1939-40 records.

Turning to the enrollment figures we find startling contrasts. Take the data for high schools as an example, using the proportion of youth of high-school age (14 to 17) who are enrolled in grades 9 to 12 inclusive. The range in 1939-40 was from 395 per 1000 in Mississippi to 942 in Wyoming. Eight states had less than 500 pupils per 1000 of high-school age while ten states had more than 800.

That these startling disparities are not due to generosity and enlightenment in some areas, and to backwardness and niggardliness in others, may be shown by reference to respective economic differences. The fact is that there is a close relationship between ability to support education

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and the quality and quantity provided. A study by states shows this with respect both to income per child aged 5 to 17 and to relative taxpaying ability per capita of population.

The conditions described, it may be mentioned, do not tell the whole story. Significant also is the disparity between provisions for white and Negro children in many sections, and likewise the marked differences between favored and poor districts within states. All in all, we must be impressed with the challenge presented to our basic democratic ideals of education. Clearly the benefits of education are not equally distributed among the population, nor is equality of educational opportunity enjoyed by our youth. It is a plain fact that in many districts and areas of our country, educational conditions are far below the margin of cultural respectability.

One of today's major problems is how to remedy this situation.⁴ That it is the responsibility of the states, primarily, to upgrade the schools of their poorer districts is generally agreed upon in theory, though many states lack the wealth to accomplish much in this direction. There is a strong movement, therefore, to establish a general system of federal aid. This plan is advocated by leading educational authorities; but needless to say, it encounters strong opposition upon the part of those who think that the term "states rights" embodies a holy spirit, and upon the part of all who fear anything that suggests centralization of power.

Great Issues in Education Today

America regards education as an enterprise of all the people. We consider it as a function of society operated in the open by public servants who, as a matter of course, are expected to relate education to the needs and activities of our lives. Our education is fused with the mass experience of living. It is no chaste ritual carried on in a temple of learning; it is a social business keyed to events.

In our world three major developments have imposed upon education its greatest problems. It may be said at

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once that these problems transcend the bickerings that are heard over the teaching of the fundamentals, and exceed beyond measure the generally misconceived issues that have risen upon the trail of progressive education. The imperative problems of education today, if we are to assess them in terms of social importance, arise from crucial needs that have evolved in our history and taken form in the crises of the twentieth century. They are:

(1) What can and must be done through education to insure the moral and cultural health of our society in an age increasingly dominated by a machine economy?

(2) What can education do most effectively to bring about a realization of the ideals of democracy?

(3) What contribution can education make in establishing and maintaining the conditions necessary to world peace?

Problems of a Machine Age

Any system of economy must produce its own peculiar problems in personal and mass behavior, in living conditions, and in other aspects of a people's culture. This was true in the ancient world, and in modern times it became increasingly evident with the advance of the industrial revolution. In America the century of power through which we have just passed has completely remade the cultural frame of our nation. As we have progressed from a rural to an industrial economy, and from hand work to machine production, every element of our civilization has been affected. The economy of a nation produces the life blood which flows into all the arteries of its being. Its influence is seen not only in the practical aspects of living, but in those manifestations of our culture which we sometimes refer to as the higher and nobler things of life.

Education in the past has been inclined to disregard its own inevitable position in the economy of its time. To use a trite expression, it has preferred to remain within its ivory towers. It has chosen to look upon itself as somehow apart from the common business of life, even as it has condescended, now and then, to turn an academic eye

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upon the phenomena of the world about it. We have come in recent years, however, to a turn of events which presents education with critical and unprecedented problems.

Industrialization and the invention of implements swung into a new orbit at about the opening of the present century. The sciences, which to that time had been gathering strength in their understanding of the physical world, burst into an accelerated tempo of invention. Creative applications of science have followed one another at an amazing pace. Those of us whose memory covers forty years have seen the coming of the automobile, the aeroplane, the motion picture with the addition of synchronized sound, and radio with the culminating achievement of television. We have seen the birth of these and have witnessed the resulting transformations in the basic habits of our common life. But in naming these striking inventions and their results, we touch but a part of the picture. Technology, the genius of this age, has created machines, processes, and devices for every common need. More significantly, new inventions have produced new needs, and will greatly increase them in the years just ahead. Concomitantly with these developments, and as an aspect of the same phenomenal movement, we witnessed the severance of time and space barriers throughout the world. We saw transportation speeded on highways and rails, on the water and in the air. We saw instantaneous communications established. Before our eyes, in half a lifetime, the globe lost its forbidding distances and its parts were joined with physical bonds. We find ourselves on the margin of a new age equipped with the physical instrumentalities of universal commerce. It remains to be seen whether, through the same means, we can advance in like degree the welfare and happiness of man.

What we have seen is the ascendance of mechanical forces as prime movers in social readjustment and change. Many would choose, no doubt, to enjoy a different state of affairs where the commanding energies would spring from idealistic sources; a condition in which we could truly say that our civilization is progressing constantly under the impact of virtuous motives. We would prefer,

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perhaps, that machines be subordinated to goodness of life as conceived by moral philosophers, instead of their being elevated, as it seems, to a position where they create the desirable goods of life.⁵ The dangers generally recognized as arising from the dominance of the machine may be summarized:

(1) The vast increase in material goods multiplies material desires, and cheapness of production stimulates them. Acquisitiveness is aggravated. People become absorbed in the getting of things that money can buy, and, it is to be feared, less and less concerned with the goods that money cannot buy.

(2) Material standards threaten to dominate the culture. Goods produced become the measure of cities and nations and goods possessed the measure of individual merit. More serious is the threat to moral standards, arising from progressive industrialization and all of its attendant social tensions and imbalances. Does the system embody conditions that encourage moral laxity, or that lead to increasing delinquency, crime, divorce, and other evils?

(3) The increasing and the multiplying of machine products intensifies the competitive aspects of economic life. Capital and labor expand in power, and conflict between them assumes far-reaching proportions; likewise the conflict of both with the public interest. Nations and cartels struggle for raw materials and markets, and the peace of the world is threatened.

(4) The arts of the hand are supplanted by the arts of the machine. This has produced extensive cultural effects. We find an aesthetic pattern of new forms and unprecedented dimensions imposed upon our civilization. Strange functional concepts encroach upon long accepted tastes. Production in mass pushes to the background the independent designer and craftsman. Volume threatens to engulf quality. The machine virtually reshapes the aesthetic context of our life.

(5) In general, will the machine progressively expand its dominion over the habits and materials of existence? While holding vast numbers of workers to robot jobs, will it grow to be the thing that rules the lives of sellers and

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distributors, agents and financiers? Will its grip close upon all whose subsistence depends, even remotely, upon the wealth that it produces? What these questions reflect is the danger that the human personality, failing its own possibilities, may be absorbed into an ethos centered upon the machine and ordered to its system of gravity.⁶ Thus stated, the problems of the machine age present possibilities of cultural deterioration. These possibilities are real. They are perhaps inevitable unless we learn how to turn our power and our mechanisms into a superior culture, and have the will to do it. Whether this happens or not is something that depends in great measure upon our education. The problem is great and is not simple. The reason it is not simple is because it cannot be solved by teaching and preaching. This is something that modern psychology and education have established: people are not made good by giving them lessons in how to be good, or by trying to talk them into it. Nor are they led to love the beautiful by those means. As later chapters in this volume will show, the motives that govern our lives arise through varieties of experience which find no substitute in verbal precepts.

One thing is certain: we cannot turn back the clock, and the time is now. We could not, even if we so desired, move to another world. We have to take the machine and its creations and use them in the interest of humane and aesthetic life. Education must turn to the machine and invite all of its amazing contributions as new potentials for refining the personality and creating an admirable environment. This does not mean that these resources be bent to the shape of yesterday's heart's desire. It means, indeed, that our own concepts of a finer world shall find new forms and discover new appreciations in the frame of culture which the machine has created. All this is not merely a matter of personal readjustment. It is a matter of social readjustment, for society must learn how to erase the ills of industrialism and use its forces for good ends.

The argument is presented brilliantly by Lewis Mumford in his volume, *Technics and Civilization*. To him the great question is this: "Granting these new instru-

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ments, this new environment, these new perceptions and sensations and standards, this new daily routine, these new aesthetic responses — what sort of man comes out of modern technics?" And regarding education, he says:

Whatever the tags, archaicisms, verbalisms, emotional and intellectual mischiefs of our regnant system of education, the machine itself as a constant educator cannot be neglected. If during the paleotechnic period the machine accentuated the brutality of the mine, in the neotechnic phase it promises, if we use it intelligently, to restore the delicacy and sensitivity of the organism.⁷

Problems of Democracy

The second great area in which education meets a crucial test appears in the imperative that it sustain and advance the American conception of democracy. The term democracy has endured many recondite probings by philosophers and political theorists, and it has suffered vulgar distortions from the advocates of all kinds of political and economic doctrines. But despite these confusions, there is without question a vision of a good and just society—one that glowed in the minds of some of the fathers of the Republic, found expression in immortal documents, and shone with changing light through the years. The vision has held a consistent form, a constancy of principle; it has contained a power to stir devotion and to compel creative legislation. We call it democracy.

The essence of the democratic idea has appeared over and over again in history. It was no new thing to the philosophers of our Revolution, for they were in direct line with the revolutionary thinkers of France. The deep principle of democracy is its assumption of human fellowship and worth, and this is something it shares with the Hebrew tradition. Its constant parallel is the ethical teaching of Christianity. Philosophers and poets, pagan and secular, have produced an enduring literature upon the same theme.

Whether democracy has in recent years penetrated more deeply into the conscience of the people is a question that

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only the future can answer. It appears now that more serious thought is being given to it than has been known before. We hear more about it and we read more about it. It is doubtless true that this impetus has come from the trials of economic depression and from the agonizing experiences of war. We may well fear that the return of peace, and a wave of prosperity (if it comes), will dampen the fine impulses that have arisen in suffering among great numbers of people.

One of the evidences of our greater concern for democracy is the effort made to lift it from the abstract and visionary and to set it forth in specific principles. This is a practical move. It defines objectives and gives a clearer view of what we must work for through every form of education.

Berkson lists these specifics as follows:

respect for the worth of personality; equality of opportunity; nondiscrimination of racial and religious minorities; maintenance of civil liberties; the right of each person to participate in the formation of policies which affect his life or conduct; the dependence on nonviolent, gradualist methods of social change; use of the method of intelligence — knowledge of facts, open discussion, and verification of conclusions — in the solution of problems. ⁸

Berkson adds to these a "broader idea of community betterment which is made the major aim of the educational endeavor." He is referring to a sense of social responsibility which all must feel in a society concerned not only with the protection of rights, but with the realization of duties.

These statements present fairly and simply the ideals of democracy. They *are* democracy. Without their meanings, the word democracy is but a hypocritical sound to hide contrary purposes and illiberal designs. But while pointing to the essentials of democracy, these statements also turn a spotlight upon our deficiencies. They reveal each definite area in which we have as yet failed.

It requires little knowledge and less imagination, but only an open mind, to see the gap between the ideal and

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its realization. But to close the gap demands a conquest over barriers anchored deep in the nature of men. Prejudices as old as history stand in the way. Age-old jealousies of social rank and privilege obstruct the goal. Fears such as men have always known — fear of interference in property, fear of imposed restraint, fear of change — raise forbidding obstacles. Against these impeding forces the will of democracy has to battle with strength impaired by the drag of indifference, cynicism, and fascistic elements.

American educators have in recent years made a significant advance in having passed beyond a vaporous generalization of democracy to a more realistic conception. It may be said, too, that our educational leaders and great educational organizations have taken a strong position in favor of democracy and its teaching. The publications of the Educational Policies Commission give marked evidence of this. It is fully realized that democracy, in the true sense of the word, is something yet to be won. This is acknowledged despite the indubitable fact that America has advanced far in the direction of democracy — further, probably, than any other nation. Whether we shall recede, or go on to a realization of the "American dream," must be decided in large measure by the efforts of education.

Education and World Peace

There is no need to justify the assertion that one of our major tasks is to educate for world peace. The trials and sorrows of our own people are enough to prove this. But we suffer, too, with the despoiled and tortured peoples of other lands. The horrors of war scream a terrible protest against the unreason of it. It is an unbearable thought that the world should have to endure a repetition of war's insanities, and we are helped not at all when we contemplate the added ingenuities of destruction that another war must bring.

It is the business of statesmanship to lay the political and economic foundations of peace. But to education, in

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large measure, falls the task of remaking the minds and redirecting the emotions of people so that they will sustain the peace structure. We stand upon the threshold of a far different world than we have known before — one that represents the greatest experiment yet attempted in human government. It is clear that this experiment, if it is to succeed, must have the moral support of the peoples concerned; and to get this, there will have to be extraordinary adjustments such as men do not freely make.

The educational problems of the peace are on a world scale. They are vast, complex, and confused. But what we do in America cannot wait upon actions elsewhere. Our task is not entirely new, for certain aspects of it have engaged our educators during recent years, owing to their interest in democracy and in inter-cultural relations. A summary of the more obvious needs of our program is attempted below.

(1) To keep alive the costly lessons of fascism and nazism. To allow no lapse of memory as regards the vicious results of those doctrines as shown in the causes and events of the war.

(2) To overcome prejudice against enemy peoples, as distinct from their criminal governments, when their mania has subsided. This would be in the interest of expanding and strengthening the peace structure as our enemies prove chastened and reformed.

(3) To build wider and more inclusive interests in other peoples, and understanding and appreciation of their cultures, and a feeling of membership in the world of nations.

(4) To keep a desire for peace uppermost by emphasizing the sanity of peaceful processes. We must make a cult of the methods of conference and arbitration, and build the rare attitudes essential to concessions for a common good. We must create an aversion to jingoistic bluster and loud calls to force. While retaining a realism with respect to military preparedness, we must develop a determination to make it unnecessary.

(5) To build a loyalty to the world federation parallel to national loyalty. This means launching into an untried field. It means the projection of emotions and con-

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victions into areas which hitherto have been attainable only by the far thinking, whose education has freed them from insularity.

(6) To approach frankly the importance of collective action. Granting the values of free enterprise, with its corollaries of competition and the incentive of gain, we must face the consequence of its logical extension to the relationship of nations. Applied to nations, this principle breeds wars. It is time, perhaps, that we recognize the proper place of this principle in the larger frame of our economy, and acknowledge likewise the inevitable and necessary values of collective enterprise.

It is a fact beyond question that education must assume a paramount role in preparing our people for continued peace. In this work our leaders and great organizations will have to undertake creative responsibilities of the first order. It cannot be a business limited to young people in the schools, but must extend out among the population through every channel that the educator can command.

NOTES ON THE CHAPTER

1. Unless otherwise indicated, data are from United States Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States* (Washington: Government Printing Office, 1943), pp. 204-232. Consult later issues as they appear.

2. See Joseph K. Hart, *Education for an Age of Power* (New York: Harper and Brothers, 1935).

3. Data from pamphlet entitled *Education, a National Problem*, published by Educational Research Service, National Education Association (Washington, 1942), and derived from Census sources.

4. See Jesse H. Newlon, *Education for Democracy in Our Time* (New York: McGraw-Hill Book Company, 1939), chap. VIII.

5. For a historical account of the problems raised here, see Lewis Mumford, *Technics and Civilization* (New York: Harcourt, Brace and Company, 1934), chap. VI.

6. Robert S. Lind, in a similar line of thought, draws this picture:

"As a consequence in such a culture . . . viewing the way ahead as dependent upon maximizing production, a disproportionate structuring has developed around the institutions supporting private property. The 'center of town' is the business section; nine-to-five, our best waking hours, are devoted to work; the Chamber of Commerce or its equivalent dominates the policies of the city; while all our lives we shiver or become buoyant with the dips and rises in 'the market.' This part of living thrusts up like a skyscraper, above the generally low profile of the cultural structure. The family, the political state, education,

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religion, and recreation lean unevenly and insecurely against its base." *Knowledge for What?* (Princeton: Princeton University Press, 1939), pp. 68-69.

7. *Op. cit.*, p. 359.

8. I. B. Berkson, *Education Faces the Future* (New York: Harper and Brothers, 1943),* p. 258.

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PART I

THEORY AND PHILOSOPHY

CHAPTER II

IDEALISM AS EDUCATIONAL PHILOSOPHY

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It is obviously true that a one-to-one correspondence between a so-called school of philosophy and education is impossible for several reasons. The school of philosophy itself may be taken too seriously. After all, any philosophy is personal. Even a realist, while holding to the separate and autonomous character of the universe, would doubtless grant that his view was his own and not in complete agreement with that of any one else. A school of philosophy is but a group of persons with a common interest in certain problems and a fair agreement as to their solutions. To elevate categories into realities in their own right is to fall into the fallacy of the abstract. The purpose of all categories is that of breaking up a continuous reality for the purpose of understanding and utilization, that is, their value is epistemological rather than metaphysical. Thus a cleancut definition of idealism that would satisfy everybody is out of the question, but it will be, however, the object of this chapter to point out certain emphases in modern education which are the logical outcome of an idealistic view of the universe.

Definition of idealism. Idealism is the way of explaining the universe which finds ultimate reality in mind and

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wholly in mind, mind being interpreted as the chief characteristic of the person and arrived at through the intuition of the self. Much misapprehension and even misrepresentation has distorted the basic meaning of idealism until it has at times seemed ridiculous, especially as presented by its opponents. For example, does not the historic saying, *to be is to be perceived*, mean that my desk passes out of existence when my back is turned upon it and returns when I again face it? Even so confirmed an idealist as Bishop Berkeley did not hold such a view.¹ He stated that he did not in the least doubt the existence of things. The idealist does not deny the existence of the world he lives in, but he attempts to explain it, and to him the best explanation is that which does so in terms of mind. The key to the meaning here is the distinction between concrete and abstract reality. Concrete reality signifies the wholeness of the universe, a wholeness which is mental and subjective. Thus my desk may continue to exist when I am not perceiving it, but it is then abstract in the root meaning of the word, that is, it is apart and separated from the living process of the universe and thus ceases to possess concrete reality. In this sense it may be said to be unreal in itself. But the statement in no sense denies the electrons, atoms, molecules, etc., which compose the desk quite irrespective of whether I am present or not.² The problem of the static versus the dynamic character of the universe is one of great importance to the definition of idealism and will now be dealt with.

Metaphysical values. Horne has stated that:

All human values are but temporal expressions of an eternal order which has value in itself. This eternal order is spiritual in character and changeless in nature.³

Thus idealism is made responsible for a view of the universe which is essentially static. Wahlquist reports a similar view as being held by the idealists in education generally. He says: "Professors of literature, languages, art, music, and allied subjects are likely to be highly idealistic, searching for the eternals in the great books and great

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works of art."² He says further in an attempt to identify certain of the "eternal verities": "'Liberty,' 'justice,' and 'equality' are definitely idealistic concepts. Idealism assumes that loyalty must be inculcated and that children must be trained to their status in life."⁵

Referring to the "eternal truths," Demiashkevich quotes approvingly from the *Antigone* of Sophocles:

"The immutable unwritten laws of Heaven,
They were not born today nor yesterday;
They die not; and none knoweth whence they sprang. . . .
. . . Among those divine laws are found the fundamental
moral values accepted by the consensus of humanity —
moral values such as filial piety, loyalty, dissatisfaction
with material satisfactions, the love of justice and beauty,
and the like. . . . Around the fundamental and permanent
moral values of humanity — or moral categories — there
can be built a reasonably convincing code of morals. . . . The
eternal moral ideals of man must be put on the list of un-
changing objectives in education. ⁶

Following the same general line of thought, Maritain says: "If the teacher himself has no general aim, nor final values to which all this process is related . . . then he teaches educational recipes but gets away from any real art of education."⁷ He says significantly, however, in another place: "Thus the chief task of education is above all to shape man, or to guide the evolving dynamism through which man forms himself as man."⁸

Woelfel summarizes the general position of H. H. Horne in part as follows:

Education is the process whereby we become adjusted inwardly and outwardly to the vast universe about us — from nature through our fellow human beings and ourselves to God. The processes of change, growth, and development, through which we attain this adjustment, take place against a stable background of inherited culture, social institutions, moral ideals, and organized subject matter, all of which in essence are Absolute. ⁹

The general outcome in education of the view presented above is a curriculum consisting largely of human products

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of the past which are to be preserved and the method of inculcation or indoctrination, both of which are in reality materialistic as will be shown later. The group of idealists who support this position have been most vocal recently through the so-called essentialists. That they are not unaware of the charge of holding a static philosophy is brought out by Wahlquist who says: •

The essentialists especially resent the inference that the traditional school is static. They point to the great strides in American education curriculum revision, 'minimum essentials,' the gradual elimination of things involved in the so-called 'cultural lag,' the up-to-dateness of the subject matter in the modern textbooks, the improvement in the teaching personnel, improved buildings, materials, and tools of instruction. However, they do desire to conserve the values of the past, regarded as a legitimate function of a social institution and the primary reason why society institutes schools. ¹⁰

Thus the idealists in education identify and confuse idealism with authoritarianism whether of state, social class, abstract categories, or an all-inclusive and static Absolute. This authoritarianism presupposes a static universe which, as a matter of fact, is in no sense essential to an idealistic view of the universe. The Hegel-Croce-Gentile tradition may be just as legitimately termed idealistic and it interprets mind as creative and dynamic. Hocking says:

Hegel sees human individuals as immersed in the living process of the world, which is at once the history of civilization and the history of developing thought. Persons get both their freedom and their worth through participation in this universal process. ¹¹

To repeat, the concrete reality of the universe is mind. And mind, as we know it, is living activity, change, process, never repeating itself, ever creative; as Gentile puts it, "pure act."¹² Thus an idealistic philosophy should stand for life and education in its most creative aspects. There is no finality, no permanent solution of problems, whether these problems be intellectual or moral, but rather continuous life, the solutions of any one set of problems but

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opening up new sets of problems. The so-called eternal verities turn out to be at times purely abstract categories with no objective referents and at others psychological traits equally abstract and lacking in metaphysical reality. This statement does not signify that such categories and traits do not have a certain utility or even directive value in educational processes, but that they are metaphysical realities does not follow.

Epistemology. The basic mode of thought of idealism is rationalism which holds that thought is a mental construct starting with basic assumptions or intuitions and working through to conclusions. Hocking¹³ lists the basic assumptions of idealism as: (1) The ultimate nature of the world is not obvious. It is often different from what it appears to be. (2) The ease of fancy proves the lack of finality in the world of every-day experience. (3) The intuition of mental agencies as causes of natural phenomena is universal. (4) Descartes intuits the self as the most certain of all things. Previously there had been intuited a self behind the world, but now the world is discovered within one's self. Leibniz, Berkeley, Fichte, Hegel, Croce, and Gentile have carried on and developed this last intuition.

Basic Concepts of an Idealistic Philosophy of Education

Since the most thorough-going application of the idealistic philosophy of education has been made by the Italian philosopher, Giovanni Gentile, the major part of the present exposition will follow his teachings.¹⁴

Truth and knowledge. Since the major tenet of idealism is found in the definition of reality in terms of mind, spirit, soul, idea,—that is, in man's nature—it is only through the study of man that one can understand the universe. In fact he is the universal made conscious of itself. All truth is found within man. Knowledge or cognition is a spiritual process moving through infinite steps of perception without ever reaching the most perfect. Sensation has value only as it becomes perception and its value lies in the extent and scope of its connections. It is this ideative process which outlines concrete reality as defined earlier. That

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the learning or knowing process is an active process in which the person is vitally concerned gives basic significance to the view that all truth is within man. Indifferent undergoing is changed to active participation by reason or motive. The value of an idea for the knower makes its truth necessary. All knowledge is thus subjective and the objectivity of scientific knowledge has no reality apart from the persons who make use of it and have a feeling of concern for it. In fact, scientific accuracy is nothing more than the agreement of a number of persons and finds its only reason for being in its relation to human concerns. Knowledge which is weak in this relationship is incomplete knowledge. The complete knowledge which is reality or truth thus grows out of a sense of humanity wherein one vibrates in harmony with other human beings, understanding them sympathetically, and participating in their joys and sorrows. Motivation is a profound consideration of this philosophy and signifies the important place of desire in the educative process.

The ultimate aim of education. The ultimate aim of education is insight which is a continual deepening of one's consciousness of his own mental processes through a continuous act of introspection upon the moment of consciousness which has preceded. Consciousness is the knowledge which the subject has its object, the latter being the past moment of consciousness. All mental life and all reality are involved in the eternal flow of consciousness beyond the fusion point of which there is nothing but a cold product, abstract and objective. Thus man is a live and acting principle, whose essential reality lies in his ceaseless activity. This principle is central to the view of idealism here presented.¹⁵

The ultimate aim of education may also be expressed in terms of self-realization, a term used by Dewey and Tufts in an earlier work as well as by Gentile.¹⁶ For the latter the term is a reinterpretation of the Hegelian dialectic. The spiritual nature of man unfolds through a process analogous to that involved in thesis, antithesis, and synthesis. In man's spiritual nature we have the subject, object, and unity of subject and object. The subject

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is the I at its present, living, and creative moment; the object is the I in a past moment already congealed; the unity is the bringing back of this past moment for the purposes of examination and analysis, thus deepening insight. Self-realization is this rhythmic process and the self grows and expands as it develops the power of understanding its own processes which are the creative processes of reality itself. Somewhat more specifically, insight refers to a philosophic attitude on the part of every student, always seeking meanings and relationships beneath appearances and questioning aims and purposes. Thus is developed that understanding and integration of life which leads to a mastery of it.

Knowledge and instruction. It is in the idealistic conception of knowledge and instruction that one of the strongest contrasts to the view of realism may be seen. Where the latter holds to an objective world already created and existing, to be mastered piece by piece, the former holds that knowledge itself like the mental life is an unbroken whole and is in process of ever new creation. The teacher does not repeat what he knows mechanically, but creates anew day by day, hour by hour, minute by minute, his own knowledge along with that of the pupil. Since spirit is the generation of itself, and knowledge and spirit are one, knowledge is the generation of itself. This unity of knowledge is intensive rather than extensive; that is, it is not secured by the aggregation of many concepts, but is immanent in every one. One does not grasp a book as an aggregation or totality of words, but by the inclusion of each word in an ever greater whole. Every moment of spiritual process is infinite in that it holds all previous moments, but finite as it is about to be included in a succeeding moment. The breaking up or atomism of knowledge which ignores the central organizing spirit is the defect of specialization. The school in every part and in every task should keep ever before it the infinity of the spiritual act. The school as a whole is the life of the spirit linking man to man, the living, the dead, those to be born, every moment of the spirit, and not only man to man, but man to the world, that is, to the larger whole of his own

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being. This identification of man with the larger whole is culture in its deepest and truest sense.

Some redefinitions. In harmony with the conception of the mind or spirit as the free, ceaseless, and unbroken flow of consciousness or act, many of the concepts commonly used in educational psychology need restatement. For example, sensation and perception are not two separable activities of a pure mind waiting for something to happen. Apart from the act and before the process mind is nothing. Perception is the secondary or more reflective moment of which sensation is the primary and less reflective. There is not "training of the senses," but rather rich and complete experiences which are analyzed and pressed to give the utmost significance. Pleasure and pain, the emotions or sentiments, likewise, are not something separate from the other aspects of mental life. They are the tone coloring, the inner resonance of the sensation. Pleasure is the presence of the spirit within the sensation, insight, intensity of fullness of living which is its own and the ultimate value. Pain is lack, negation, that which should be and is not. It is the obverse side of sensation which is itself, work, self-realization, becoming. Abstract representations, concepts, and words are also usually thought of as something broken off or subtracted out of the continual flow of sensation. There is, however, but one category: thought, the spiritual act. Beyond this point, they are not categories, or ideas in the process of thinking, but rather ideas thought, object abstracted from the active or thinking process. There is no such thing as a word. The single word gains its meaning from the varied and flexible discourse of which it is a part. It is a moment of the spiritual life, and in its spiritual implication is found its only reality. Thus words are ever new and are understood only through the spirit behind them. Word and thought are identical and the teacher corrects the pupil not because of a poorly used word, but because of a poorly thought idea, and inadequate spiritual moment. Rules, laws, principles, and even languages and literatures are too often learned without becoming spiritual moments of the pupils, that is, vital experiences through which he has lived. The error in the con-

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cept of faculties lies precisely in their atomism of the mental life. Will, memory, attention, reason, — all are modes of approach to the spiritual process which is in itself unbroken and universal.

Some Principles of Education

Philosophy and the theory of education. Philosophy is the only science of man which has reached that desirable degree of generality or universality which makes it adequate as a basis for education. It centers around reality in its absolute concreteness, that is, being, the mental process, which is not nature or mechanism, but absolute spirit, essentially liberty. The identity of philosophy and education means simply that the problems of the latter cannot be solved without resort to the former. Abstract philosophical formulas lead to false conceptions, and systematic philosophy comes at the end of thinking and research rather than at the beginning. Education furnishes ideas, difficulties, and problems which are the raw stuff of philosophy. They become objects of reflection, that is, philosophic thought. It is interesting that John Dewey also similarly identifies philosophy and education. He defines the former as the theory of which education is the corresponding act or practice.¹⁷ Gentile holds that education is the creation and expansion of the human spirit under all and every circumstance, while philosophy makes conscious and intelligible the process.

Method or technique of teaching. Method has long suffered from the duality of theory and practice, too often being thought of as theory directed toward practical ends, and representing the ability to act apart from the act itself. There is no ability in general, but only that of doing certain determined things. There is no repetition of a given act, but every act is new, as may be seen clearly in the improvement which may take place by small increments. The act is always absolute and individual. There is a truth, however, involved within the concept of technique. This truth is that the spirit is process, that is to say, capable of a gradual development which does not take place in a hap-

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hazard way or independently of any special learning period. The difficulty lies in considering method as well as content apart from the real concerns of the pupil, something abstract and complete in itself. Much recent discussion of the so-called liberal education has suffered from this difficulty.

For example, Van Doren says:

The consensus, ancient and modern, seems to be that there are three natural or necessary levels: elementary, liberal, and professional. These can be variously stated, and of course they are. The first can be called preparatory, the second intellectual, and the third practical — if practical is understood as meaning the full use in maturity of the mind that has been made free for employment. The first can be said to have in view the improvement of the creature through a wise exercise of his senses, his memory, and his imagination; the second can be described as a discipline in abstraction, an introduction to ideas; and the third can be set down as philosophy at work. ¹⁸

Many students of education expect too much from their training period and are disappointed and disillusioned because they must learn to teach by teaching and there are no fixed rules of procedure or readymade solutions to problems. The most that the preparatory period can give is richness of understanding and depth of insight.

Subject matter. The view of method presented above grew out of a materialistic and dualistic view that method is different and separate from the subject matter. Science, ability, virtue, art — these have been falsely considered the material of education, something closed within itself, produced once for all time. Science, and even classical literature, were looked upon not as the product of mental activity operating in and reacting to a specific social situation, but rather as truth or reality in itself with which the mind was to put itself into communication, which it was to master. Science and literature do not exist in books and test tubes, but where they are realized, that is, in the mind of man and only there. Method and subject matter, or better, curriculum and procedure, cannot be separated. A

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science, or the science, is the spirit realizing itself in an ever new process. The teacher of chemistry is not one who brings the pupil and a finished product called chemistry together, but one who assists the pupil to develop his own spiritual life, one aspect of which is a chemical understanding or interpretation of experience. The problem thus of the teacher is not one of bringing them together, but rather of separating them, of making the pupil aware and conscious of the deeper meaning of his own inheritance of culture. True method is in a sense historic. Past solutions of problems, techniques, and devices are not lost. Every moment of the spiritual process is a treasuring of the past which it works into new syntheses. One may study the work of others and relive its forms, although the true teacher is not one who "possesses a method" or "knows the subject," but rather one in whose mental life the life of the spirit converges and is renewed. Curriculum and procedure then can never be wholly fixed and rigid because there is no repetition of the teaching situation. The pattern of the whole is ever new since the details are constantly changing. The essential element in the situation is the adjusting and organizing power of the teacher who sees each situation as a whole or unit, however new it may be. Such power grows out of the richness of his own experience in which his own personality is ever the organizing force.

Relation of teacher and pupil. The teaching process is a state of rapport between teacher and pupil. During the ideal lesson both teacher and pupil are so completely absorbed in a single spiritual process that neither is sensible of the presence of the other. This perfect spiritual unity cannot take place, however, unless the creative activity of the teacher furnishes an example of that which the pupil is attempting to realize on his own part. The teacher cannot inject into the life of the pupil that which does not fundamentally derive from his own nature. He must enter into the very mind of the child where his life is gathered and centered. This seeming sacrifice and renunciation of his own personality is neither more nor less than the realization of his own spiritual process, his own subjectivity. Losing thus his life in that of the pupil is the surest way

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to find it. There is no point of arrival for either, since both are resolved in a single process within which each is ever realizing himself and attaining new levels in the development of his own personality. The pedant is one who always repeats the same lesson, losing the originality and freshness which should come from the creative character of every moment. The master teacher does not repeat, but renews himself perennially in the spirit of the pupil. Both learn together and become more expert and efficient.

The progressive improvement in teaching skill is concomitant with the more vigorous mastery of one's own knowledge, the more perfect organization of his own culture. Poor teaching is thin, colorless, broken, and incoherent. The good flows like an impetuous stream of creative spiritual power. The teacher is the spiritual parent of the child. In his life the child comes to a place of self-creation, takes his part in the universal and eternal process of culture just as through his parents he has been inserted into the creative process of the world. The only true, concrete, and whole teacher is the universe itself, everything that impinges upon man and finally is assimilated into the rhythm of his own being. It is only empirically that one man can be called the teacher of another. But with the immature, the teacher is that universe drawn down to his level, made personal, conscious of itself. The service he thus renders has great spiritual value and is in fact invaluable. The sense in which the teacher becomes the universe for the child is not a summation of reality in an encyclopedic sense. It is rather the all in the sense of the spiritual center or organizing principle of the whole. For example, the teacher of a language is no less the language than is the book in which it is written, but is much more. The teacher is the language, but also the world of the language focused and ordered down to the level of the pupil, spiritualized and humanized by the personality of the teacher as an organizing principle, made conscious of itself, given a soul. This conception of the teacher's being concrete and spiritual reality for the pupil, apart from which there is not reality but abstraction, is the specific application of the statement that philosophy is education.

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Some Special Problems of Education

*Formal education.*¹⁹ A present-day problem of education which is a revival of the same problem conspicuous a generation ago is that of the antagonism between the form and the content of education. It is held that what is important is not what is taught, but the mental dexterity or training attained in the learning. The school is a gymnasium with culture as the exercising bar. Trained faculties, discipline, abilities are conferred irrespective of the material handled, to a large degree. To be sure, certain subjects are held to be more educative in this sense than others, languages and mathematics, for example, but even in the case of these subjects their virtue is declared independent of their direct usefulness. In fact, irrelevance itself at times seems almost to be elevated to the position of a virtue in its own right. Mark Van Doren recognizes this generalized ability when he says:

The accuracy which mathematics requires is not a trivial virtue. But mathematics, particularly if it is enjoyed, also trains the mind in abstraction, the prelude to a central and major virtue.²⁰

Green and his collaborators even more pointedly express the same view:

Mathematics is essential to engineering and industry, and the natural sciences have contributed enormously to our health and comfort. But these utilitarian contributions would not of themselves justify the inclusion of these subjects in a liberal curriculum. . . . the natural sciences . . . merit inclusion in a liberal curriculum . . . because they . . . offer such excellent discipline in careful observation and objective interpretation — a discipline essential to the search for truth in any field of inquiry. Similarly, the lib-

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eral study of the arts and literatures not only contributes to our understanding and appreciation of artistic beauties and insights but, in addition, strengthens and disciplines the imagination, which is essential to moral and religious comprehension.²¹

It is a curious fact that this extreme emphasis upon form which characterizes some of the static idealists comes out at precisely the same point as the view of the frankly materialistic thinkers. There is little to choose between the pseudo-humanistic education of those who support "art for art's sake," "pure science," research to increase knowledge only, and the out-and-out materialists who find reality objective and non-personal. The solution of the problem of form and content according to the view of idealism presented in this chapter lies in the recognition that education involves both form and content. The materials of education must always be intrinsically worth while and the learning process is essentially that elaboration of the materials which means the personal reorganization of one's own experience, that is, the creation of form. Thus the criterion of worth of all art, science, research, and other educational activity from the idealistic point of view is human value interpreted in terms of spiritual process.

Intellectual education. The discussion of intellectual education follows and continues that of formal education. The defect of intellectual education has consisted in its interpretation as a mental discipline separated from activities or content. This view, as illustrated above, holds that there is a way to train the mind in general and to make it competent to deal with any situation which may arise irrespective of the concrete detail involved. This view grew out of the older faculty psychology and has persisted even after that theory was completely discredited by the psychologists. The use of the intelligence, however, cannot be separated from that of the other aspects of the mental life which is one and indivisible. To be sure certain techniques may be learned and utilized as common elements in various situations, such, for example, as rules in mathematics, but these rules do not represent generalized abilities of the mind which is in reality limited to the areas which it has

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learned to deal with. The spiritual process is a continual positing and solving of problems which are genuinely felt by the pupil. In so far as there is a larger universality in the problem and the involvement of personal feeling is minimized, it may be termed intellectual, but such characterization is relative. The true and real problem never gets away from the sense of need which is the presence of the spirit within the process. This spiritual center is the organizing and unifying center of knowledge which is increased continually with the progress of life itself. The more one understands, the more one can understand. Study is the spirit forming itself.

Moral or volitional education. It is the felt need behind the knowing which introduces the moral and volitional aspect of education. Knowing always has a personal relationship in the motivation behind it and it can never be separated from this aspect. Understanding is a process which at all stages must be supported by the attention, and attention is not predetermined or driven by an external force, but exists by virtue of the end desired. This end is always the need referred to previously. Need is sensation, acquaintance, hunger as actually felt, that in which the I is immediately present, not something prescribed by another who thinks it ought to be felt. Need does not arise spontaneously within the spirit; it grows out of the very nature of the spirit itself and is the expression of what it values, that is, its philosophy or conception of life which is the personality. Moral education is the creation of this idea of the world in which the individual has his being and without which he would be destroyed. One's philosophy is one's character. Everyone is a martyr to his own ideas in the sense that he not only professes them, but actually proves and realizes them in his own life. When there is a discrepancy between one's ideas and his living, he does not hold the ideas he thinks he does. Ethics is the organization of life in harmony with moral insight. Immorality is the disorganization of the personality. Herein lies the evil of marks and other fictitious motives in school work. The pupil is torn between what he is really interested in and what he must pretend to an interest in.

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*Religious education.*²² Religious education does not refer to the inculcation of abstract dogma, but rather to the immediate experience of the spirit. The religious moment of the spirit is defined by the mystic as the union of the spirit with God. God is reality, being, universal object, the presupposition of every determined object. The union of the mystic is a submergence of one's self and an abandonment to the object, God, who is not outside the spiritual process, but is the objectivity of the spirit to itself. Religious education may be considered from two points of view: that of a determined and objectified religion, and that of the development of the form of spiritual rhythm through which the I objectifies itself in the eternal process. The first view is inadequate since it tends to arrest the development of the spirit. This latter view, however, is partial, since religious dogmas themselves are not fixed but are in perpetual movement or development. In any case it is a wrong to childhood to inculcate a belief with such vigor that his moral choice is stultified in later years when rational choice might lead him along other lines. The schools, however, are more concerned with the second aspect wherein the process of learning involves, not a continual proceeding ahead, but a stopping at every step and turning within to emphasize no less the truth than the certainty of knowing. In other words, religious education refers to the critical or evaluating aspect of every step of learning, leading to an attitude toward truth which is not merely a sentiment, but rather a mode of knowing and living. Still a teacher may pass on to his pupils certain historic aspects of religion which he himself does not hold to, recognizing in them the means of developing an imperfect and immature form of the spirit into a higher spiritual form. For the child to understand what is presented to him is not sufficient. He must have acquired something which seems to him real and enduring and to which he may render homage. Thus his life is given stability and balance.

Science education. Like religious education, scientific education refers to the placing of man in the presence of a world of pure objectivity. It may suffer from the same abstractness as religion and become quite as dogmatic and

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inflexible. In both cases the cause is the same, the positing of a world apart from the spirit instead of a world where essential reality is the spirit. At the head of all the particular sciences stands mathematics, the most objective and exact of all that is subtracted from the creative activity of the subject. Every science aspires to the exactness of mathematics, that stage where further change and correction are impossible, but this great advantage is also its death. Living knowledge is not exact. It exists to serve men and is always in the process of becoming without ever arriving. But the death of science, mathematics, and history as tradition, putting limits to the immediate liberty of the subject, becomes the nutriment by means of which it attains its own larger growth. In other words, it is in the process of organizing the mass of undigested and unorganized particulars and seeking unity and basic relationships in them that it arrives at its own larger vision. All of which is to say that the teaching of science must find its reason for being and its orientation around the concept of human value. "Pure science," research for the accumulation of knowledge solely,—these are essentially materialistic concepts. It is not necessary to fall into sordid utilitarianism to hold that science must be taught with a view to human concerns. As has already been pointed out, irrelevancy to such concerns has apparently been raised to the level of a virtue in the minds of some. On the other hand, some have made measurability of relevance the criterion of all value. For the idealist both extremes are untenable. All values are ultimately spiritual and personal.

Aesthetic education. That education which most clearly represents the spirit in its full subjectivity is aesthetic education or art. The artist, however, may live too fully in his subjective world and fail to recognize that which exists outside of his art, science and religion, for example. In any case aesthetic education is egoistic, emphasizing the expansion of the I, the affirmation of the self, freedom of expression, the self-creation of a determined personality in the world. The virtues of this form of education are originality and individuality. Composition, drawing, and

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singing are the subjects wherein creative expression is most often cultivated, but all subjects have a creative aspect. The secret of this type of education is to avoid models and preconceived forms, and to express one's self in one's own manner following the lead of the impulse which derives from the very process of one's own spiritual development. Reading at its best is also a creative activity in so far as the pupil relives the work of the author. Aesthetic education does not refer to the education of professional artists or poets, although the process in their case is not essentially different from that in the case of ordinary pupils. It is not thus necessarily a specialized form of education, but an aspect of all education which in so far as it is truly idealistic or spiritualistic is marked by creative activity.

Physical education. Ordinarily physical education has been set apart from intellectual and moral education as if the body were something separated from the spiritual life, even a burden upon it. As a matter of fact, the body cannot be separated from the other aspects of the mental life and is spiritualized as they are spiritualized. One does not inherit his body from his parents, but rather the principle of life itself which in its own development creates the body. Every exercise in which the spirit molds the body to its aesthetic or moral ends is educative of the true body. It does not make a strong and agile *animal*, but a strong and agile *man*. The beauty of rhythmic activity is not the beauty of a mechanism, but that of a person. This view does not deny of course that there is biologic functioning; a blind person cannot acquire sight through education. Where there is not spirit, volition, consciousness, one cannot speak of education. Thus the body apart from spiritual process does not partake of concrete reality, but is abstract like any other deposit of past spiritual process.

Discipline. Discipline is an essential of the school, although an idealistic philosophy interprets it very differently from the naturalistic or pragmatic where the pupil is controlled mainly by the conditions or setup in a material sense. In idealism the primary element is the teacher, not in any egoistic or capricious sense, but rather because he is

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the will or law of the school personalized. Just as in the case of the subject fields where he is the subject with a soul, humanized and personalized, so, in the case of the authority of the school, he is its personal embodiment. In this sense the basic power of the teacher may be termed love and is the antithesis of force, in precisely the same sense that Christ taught when he threw the two concepts into contrast as elements in social cohesion. In no sense is his view of discipline easy-going. The yoke is easy and the burden light even though they entail martyrdom. Man gives up his liberty to pursue ends of lesser value in order to attain those of greater value. In the school it is the teacher's larger experience and deeper insight that represents the greater value of the student, which value he must often take on faith before his new rationality has developed sufficiently to give him insight of his own. Thus teacher and pupil are bound together in a bond of spiritual unity in which there is a loss of self-centering and a fusion in universality. This love is not blind, however, but profoundly comprehending and the outgrowth of a life on the part of the teacher which is rich, full, harmonious, and achieved by following what is often the hard path of duty. Discipline is thus not a condition of the school; it is the very school itself which is disciplined precisely by the quality of the teaching and the culture of the teacher which vitalizes every aspect of the school. In discipline is a cleft between the pupil as particular and the teacher as universal, and punishment may be necessary to make the pupil aware of the cleft. Awareness of break is the essential condition of its healing. Prizes and marks falsify the ethical ends immanent in spiritual activity and are thus a corruption. The only true reward of every spiritual act is the pleasure of satisfaction derived from the free exercise of spiritual activity.

Philosophic education. The true humanistic education is philosophic education, that is, the education of the *man* who is the spiritual reality of the whole, at the same time individual and universal. It harmonizes the subjective aspects of aesthetic education with the objective aspects of scientific and religious education. Philosophy has always

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been the concept of the real, not a part of it, but the whole. This philosophy is not theoretical speculation, but the indivisible unity of the spirit, life itself, rising above special manifestations in any of its parts. It is also not that coherent product of the riper years of reflection, which is known as a system of philosophy, but the inner character of all instruction which looks toward the progressive establishment of an integrated and harmonious personality. This philosophy can never be taught as a special subject since it is reality itself, life always in the process of creating itself, spirit. The teacher is the norm and actualization of this philosophy, not at one moment, but continually in the flow of spiritual process which involves both teacher and pupil.

The great defect of the school is its detachment or abstraction from life and its fragmentation of the spiritual process. The pupil forgets to be son, brother, friend, in the deeper sense of the word. One speaks an artificial language within the school which is heard nowhere else. The subjects taught assume an artificial character which makes them seem unreal. Literature becomes a collection of forms and techniques whose emotions are not felt, science a series of dogmas which the research worker would not recognize, history a series of facts and dates without life or relevance to any known aspect of one's world. Thus a spiritual disorganization of subject and object leaves the pupil cold if not antagonized. This spiritual disorganization is the origin of immorality. The principle of every morality consists in seeing one's self wholly involved in every part of the world and every part of the world involved in every breath of the I.

Some Possible Criticisms of the Idealistic Philosophy of Education

The idealistic philosophy of education thus emphasizes personality, mind, spirit as ultimate value with tremendous vigor. It may underestimate the place of activity which centers about things, thus somewhat overbalancing the curriculum in favor of the humanities, although the spirit-

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ualizing and humanizing of the technical fields is one of the outstanding needs of the day. There is further danger of a failure to give sufficient place to social processes, such, for example, as interstimulation and interaction, from an inadequate recognition of social institutions and their effect on the development of personality. The emphasis upon a strong pupil-teacher relationship may be overdone and rational self-reliance undesirably delayed. These defects, however, are not inevitable in an idealistic philosophy of education and do not prevent its being a powerful opponent to dogmatism, deadening routine, empty specialization, and uninspiring formalism in the name of the human spirit which is a ceaseless becoming seeking ever higher planes of attainment.

NOTES ON THE CHAPTER

1. See Alfred Weber and Ralph Barton Perry, *History of Philosophy* (New York: Charles Scribner's Sons, 1925), p. 319.
2. See H. Wildon Carr, *The Philosophy of Benedetto Croce* (London: The Macmillan Company, 1927), p. 36.
3. Herman H. Horne, "An Idealistic Philosophy of Education," chap. IV, *The Forty-First Yearbook of the National Society for the Study of Education*, Part I, *Philosophies of Education* (Bloomington, Illinois: Public School Publishing Company, 1942), p. 183.
4. John T. Wahlquist, *The Philosophy of American Education* (New York: The Ronald Press Company, 1942), p. 204.
5. *Ibid.*, p. 210. The same idea is developed on page 364.
6. Michael Demiashkevich, *An Introduction to the Philosophy of Education* (New York: American Book Company, 1935), pp. 352ff.
7. Jacques Maritain, *Education at the Crossroads* (New Haven: Yale University Press, 1943), p. 17.
8. *Ibid.*, p. 1.
9. Norman Woelfel, *Molders of the American Mind* (New York: Columbia University Press, 1933), p. 51.
10. *Op. cit.*, p. 126.
11. William Ernest Hocking, *Types of Philosophy* (New York: Charles Scribner's Sons, 1929), p. 316.
12. Giovanni Gentile, *Theory of Mind as Pure Act*, tr. H. W. Carr (London: The Macmillan Company, 1922).
13. *Op. cit.*, pp. 251ff.
14. Giovanni Gentile, *Pedagogia come Scienza Filosofica*, I, *Sommario di Pedagogia Generale*, 3d ed. (Bari: Gius. Laterza & Figli, 1923); II, *Sommario di Didattica*, 3d ed. rev. (Bari: Gius. Laterza & Figli 1925).
15. See Giovanni Gentile, *Theory of Mind as Pure Act*, tr. H. W. Carr (London: The Macmillan Company, 1922).
16. John Dewey and James H. Tufts, *Ethics*, rev. ed., (New York, Henry Holt and Company, 1932), p. 335.

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17. John Dewey, "Philosophy of Education," *A Cyclopedia of Education*, Paul Monroe, ed. (New York: The Macmillan Company, 1913), IV, pp. 699-700.
18. Mark Van Doren, *Liberal Education* (New York: Henry Holt and Company, 1943), p. 87.
19. See Charles L. Jacobs, chap. XIII of this volume, for a more extensive study of this problem.
20. *Ibid.*, p. 121.
21. Theodore M. Greene and others, *Liberal Education Re-examined* (New York: Harper and Brothers, 1943), pp. 46-47.
22. See also V. T. Thayer, chap. XXVII of this volume.

GENERAL REFERENCES

Note.—There have been very few writers who have written in the field of philosophy of education and interpreted it wholly from the idealistic point of view. For the most part material must be taken from textbooks and compendiums where the discussion of idealism is given in special topics or chapters. The two major writers will be placed first.

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CHAPTER III

A REALISTIC VIEW OF EDUCATION

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PROBLEM

In our preoccupation with education in this chapter, and in this book as a whole, we must, if possible, grasp this enterprise in its proper perspective. It goes without saying that education is always an indispensable industry in a democracy. It was unavoidably crippled after hostilities began, for military necessity compelled the schools to operate under handicaps of manpower shortage and supply, and adapt themselves to the immediate exigencies of war. But America's indispensable need for an enlightened electorate was not for a moment lost to sight by our government, hence the schools, high and low, continued to function vigorously to prepare our youth for citizenship in the disrupted world, and give them an intelligent look into the challenging problems of tomorrow. With triumph for the cause of the allies, educational leaders confront the question, What of education in the period of reconversion, reconstruction, and rehabilitation ahead? This question is, of course, too broad for treatment in our allotment of space. Discussions of its international aspects alone have expanded into an extensive literature.¹ We shall therefore abstract such phases of the problem as the conduct of education in liberated areas like those in Italy and Greece, and in conquered

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The need for a general theory of practice. Those working in specialized fields are often unaware of the actual origin of the norms in their field. They are apt to assume that norms are imposed upon practice from without by some transcendent authority, that they belong to some supernatural order, that we must first inquire into "ultimate reality" to discover the "eternal verities," the final sanctions for this life. They assume that the forms of thought and of art belong to a realm beyond experience, that experience and practice can possess meaning, value, and truth only as they conform to this order; that the authority of conduct lies outside this commonplace world.

Pragmatism denies these assumptions. It insists that life is its own authority, that practice not only can, but does, generate its own guides. Preoccupation with realms of reality beyond experience may be but a covert and unavowed effort to perpetuate institutions and to safeguard interests which experience itself no longer sanctions, with intent to give them a sanction and *raison d'être* beyond experience, and as safeguarded from scrutiny and critical examination.

Confidence in experience to achieve its own controls, to generate its own ends, is confidence in man and his power. Pragmatism locates values in the lives of men. It locates sanctions and controls in their collective judgments. It does this because it sees the

process of knowledge as a cooperative undertaking in which each person so conducts his inquiry that he can make available to others a description of the conditions in which it originated, a record of what he did and what happened, and a summary of the conclusion he draws from his investigation. ⁸

A second difficulty of specialized theories of practice lies in their isolation. A culture is a continuous web of interrelated and interdependent activities, the whole life of a people. Specialization and division of labor are necessary, each division of labor being an organic function of

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known as pragmatism began to take definite form and has since achieved considerable popularity. It took its origin in the thinking of the logician, Charles Peirce, and that of the psychologist, William James. It still enrolls among its followers, in one form or another, a goodly proportion of the empirical group. Its most distinguished living representative is Professor John Dewey. But dissatisfaction with some of the fundamental tenets of pragmatism, in particular its position on the crucial problem of the nature of truth, soon led to an impressive revival of realism in America. James professed to be both a pragmatist and a realist, but he was never able to show convincingly how the major differences between these two branches of the empirical family could be reconciled. Finally and more recently, here and abroad, a coterie of philosophers known as positivists has appeared within the empirical ranks, but since their impact on education has not yet been appreciably felt, we shall give them no further concern. Most attention, in the pages to follow, will naturally be devoted to the realistic outlook in education, but references will be made to absolutism and to pragmatism, in order to obtain clarity by contrast, and also to give due consideration to points of view that are being widely discussed at the present time and are being proposed by their devotees for the guidance of educators. Let us take up, first, the modern recrudescence of absolutism.

Present Upsurge of Absolutism

The term absolutism as here used is opposed to relativism, and relativism is employed as a term to denote a characteristic of scientific truth. Knowledge of the world, say the relativists, is tentative, subject to reformulation as new observations and discoveries are reported. They point out that Newton's law of gravitation endured without change for two centuries, then was amended by Einstein to harmonize with a hitherto unexplained perturbation in the movement of the planet Mercury. In like manner the chemistry of today, the physics and the physiology, are modified tomorrow to square with the results of the latest

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research. The conception of absolute truth has a place in modern scientific thought, but only as "the ideal limit of indefinitely continued inquiry." Such was the view of the founders of pragmatism. Such is the view of their followers today. Such, also, is the view of the realists and the members of the empirical school of thought in general.

It is important to observe that relativism, in the sense explained, implies a degree of skepticism toward all human knowledge, and, in certain circles, to be known as a skeptic is not particularly beneficial to one's reputation. Unfortunately, the word still carries some of the unsavory odor absorbed in the bitter controversies that raged between liberal thinkers and religious apologists in years gone by. But skepticism as a feature of scientific method is not particularly aimed at religion. It is an attitude of caution or doubt toward unverified beliefs in any area of life, be they stories of apostles, tales of Eskimo life, reports of animal intelligence, or gossip about the Democratic candidate for office. It simply means that statements must be verified before they can be included in the category of scientific knowledge. Even verified statements are subject to a measure of skepticism, for, in last analysis, the relativist holds that knowledge, scientific or otherwise, is constituted of beliefs of varying degrees of certainty, and that verified beliefs of the scientist differ from the others merely in degree of certainty. Skepticism in this sense is no longer a scarlet letter in the modern world. The enormous prestige of science has made it even a mark of intelligence.

It should be clear, then, that relativism as a way of thinking is opposed to absolutism; and skepticism, as defined, is opposed to dogmatism. The current resurgence of absolutism and dogmatism among intellectuals, some of them prominent figures in education, can fairly well be understood. Says Mr. Grattan,² literary critic, in a recent article: "I think that the intellectuals, or a considerable group of them, are in flight from a world which they find unbearable." In general, this group is suffering from disappointment and disillusionment. A goodly number, as leftists during the bewildered thirties, loudly proclaimed

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the glory of the coming of their pattern for Utopia, but soon found the social world veering against them in a perceptible wave of reaction. They saw the political and economic trend clearly indicated in the social scene about them. Of the big three in world affairs, Russia and the United States had both been shifting from the left for several years, and during this period Britain, though it had a coalition government, was firmly in the control of the conservative party. In America the reaction has been reflected politically in increased opposition to the "New Deal" and, educationally, in the renunciation or disavowal of certain extremes of emphasis by the Progressive Education Association and a change of name of this organization to the American Education Fellowship. A little overwrought, perhaps, but illustrative of the dismay of the leftists, is the following statement of Archibald MacLeish:

Liberals meet in Washington these days, if they can endure to meet at all, to discuss the tragic outlook for all liberal proposals, the collapse of all liberal leadership, and the inevitable defeat of all liberal aims.

A Quest for Certainty

The disquietude of another group of intellectuals springs from a deeper source. They have abandoned faith in the dominant philosophy of the modern world. They charge that empiricism ("positivism" to them) has brought modern culture, including education, to a state of chaos and the verge of ruin. In place of the uncertainty of skepticism they offer the "certainty" of a reasoned faith. Science, they contend, is not a sufficient foundation for education. They have taken flight from scientific modernism and, with certain religionists, have sought refuge in the philosophy of absolutism. Their disavowal of relativism can be seen in their belief that, as one writer puts it, "there can be discovered eternal and imperishable truths to which to cling while the world pursues its riotous course to perdition." The educational angle of the doctrine becomes apparent as the same writer adds: "If such truths can be found and widely enough disseminated, or imposed on the

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world by capturing the educational institutions, the world may, perhaps, be saved a bit short of utter perdition." Taking a glance into the past, one can better describe the movement as counterrevolutionary. It represents a striking intellectual reorientation in education, but it is reactionary, not liberal, and means "a reversion to medievalism and scholasticism."³ Mortimer Adler and Jacques Maritain, philosophers active in the movement, are neo-Thomists; that is, they gather their chief inspiration from St. Thomas Aquinas, the thirteenth-century scholastic, whose philosophy figures prominently in the official doctrine of the Roman Catholic Church.⁴

The argument of the modern absolutists, exemplified in Adler, begins with a distinct separation of science and philosophy. Science is descriptive and explanatory; philosophy is normative. The first deals with questions of fact; the second, with questions of value. This is an old distinction and means that questions of policy, of ends or aims, are not problems for science. Moreover, philosophical knowledge, Adler⁵ informs us, is demonstrable — "much more so than scientific findings are," even more so than mathematical conclusions. He claims that "every error which is made in the philosophy of education can be shown to be false." No part of it is either a mere matter of faith or of opinion. The principal task of the philosophy of education, according to this view, is to determine the basic aims or major objectives of education, which, it is claimed, are absolute and universal.

The most vital question in education today, I have suggested elsewhere,⁶ concerns the direction of its orientation. When the ends are determined, the orientation is determined. If the ends are chosen by the cult of the infallible, what is in store for the curriculum but the stagnation that lurks in a dogmatic religious creed? A similar idea seems to have been in the minds of the members of the Senate of the University of Chicago faculty, when, in a memorial to the Board of Trustees, signed by 119 of the University's 180 faculty members of full professorial rank, they asserted that the University is "dedicated to the advancement

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of knowledge through free research and teaching," and that "it cannot continue to prosper intellectually. . . if it is committed to any particular social, moral, philosophical, or spiritual ideology or other specific formulation of unity."

Failure of the Absolutists

As the reader might gather from what was said earlier in the chapter, empiricists do not accept a single plank in the platform of the absolutists sketched above. Values, according to the empirical view, do not lie in a region set apart from science for philosophic exploration. Educational values, including those fundamentally valued things for which we strive in education, known as ends of achievement, are subjects for scientific study like anything else. Any objective is a purpose or plan that may turn out well or ill for the purposer, and the degree of wellness or illness is determined by experiment, just as the value of a plan for the control of inflation, or a plan for improving relations with Argentina. The experiment is carried out, that is, the plan or purpose is given a trial, and its value is judged on the basis of the results obtained.

At the risk of unduly prolonging discussion of the neo-Thomistic program, the reader should be reminded that it is built upon a conception of human ability, including, of course, reasoning ability, borrowed from scholasticism, and modernly known as faculty psychology. It by-passes the naturalistic psychologic pattern set by James, in which a mental ability is conceived as a mode of reaction, a type of activity, in a self-dependent stream of experience constituting a personality. In current psychology, references to mental abilities as modes of response and as types of function are identical in meaning, hence the appropriateness of the term functional, as applied to modern psychology, including behaviorism, for behaviorism is merely a type of functionalism. The characterization, "faculty psychology," is applicable wherever mental process is conceived as the operation of an entity, or a thing, regardless of whether the entity or thing is viewed as

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a substantial soul or mind capable of "facultative manifestations," or whether mind is viewed as a collective name for entities severally and similarly capable. As might be expected, a return to the faculty notion would carry back into education the discredited disciplinary theory according to which education is a process of training the faculties described. And since "all individual men have the same natural powers or capacities" (faculties), say the Thomists, "the aim of education should be the same for all men."

Adler illustrates his theory of the demonstrability of absolute educational objectives "in the light of experienced fact and in terms of the canons of rational procedure." The demonstration consists of a series of syllogisms involving certain propositions whose truth is assumed to be self-evident and others whose truth is regarded as evident even though they are derived by induction from existing facts. A proof, however, is like a chain: it is as strong as its weakest link. The feeble links in the attempted proof are the so-called self-evident propositions and those that are the outcome of inductive thinking. That any proposition referring to an existent is self-evident is highly doubtful, for it is denied by many of the ablest logicians; and that certitude is not achieved by inductive reasoning is the general verdict of logic. Thus the attempt to demonstrate the absolute truth of educational objectives collapses in doubt. Adler admits the incompleteness of his proof in the following statement: "That no adequate demonstrations have been completed is a fact better acknowledged than hidden." One may go further and add, though Adler thinks otherwise, that no adequate *method* of demonstrating the absolute validity of educational objectives has been presented.

And so the brief examination of the new absolutism in education comes to a close. It has not been an easy topic to expound, hence the student-reader's notion of its essential inwardness may still be blurred by touches of obscurity. The strokes of a writer's pen that seemed like streaks of light when spread across the page may seem like bands of darkness in the spectrum of the reader's

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mind. Ah, the paucity of pens that move with crystal clarity. But in some instances obscurity will surely come from unpreparedness of the reader. Few students in education have any philosophic background worthy of the name. More unfortunate—few professors of education have such a background. Even teachers of the philosophy of education, we are reminded in a recent report,⁷ are lacking in the same respect, if not to the same degree. Many of our ablest colleagues, productive scholars in their field of specialization, see no need for acquaintance with a subject that, to their way of thinking, bulks large with a ponderous and meaningless vocabulary, and bakes no bread in education.

That philosophic study is a venture in futility is one of those traditional slants that lingers on without analysis and outruns whatever usefulness it ever had. It is now definitely yielding ground to intelligent insight, for any competent observer should sense the tremendous part that ideologies of various kinds are playing in the contemporary world. The educational absolutism with which the chapter has already dealt, and the educational "progressivism" with which it will presently deal, are both examples of ideologies grounded in philosophy. Each has originated in philosophic thinking or has been launched from a philosophic platform. How can one understand these movements without understanding the foundation upon which they rest? It is not enough to reply derisively that movements emanating from such a source are unworthy of attention. We are confronted with a condition as well as with a theory. Each of these movements has made its metamorphosis from the theoretical to the practical stage. Each is in the process of being actualized in public or private schools. Appraisal of a tendency is impossible without a comprehension of it, and a comprehension of these trends is impossible without a working knowledge of philosophy, for both are rooted in philosophic principles. By their roots as well as by their fruits we shall know them and appraise them.⁸

Thus far, criticism of the revolt of the intellectuals has been more destructive than constructive, and mere nega-

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tion wins few battles. Avoidance of error is not exactly a plan of redemption. A dog in a manger is just going no place at all. The rebellious intellectuals, whether Thomist or Marxist or fascist, have one characteristic in common; they have *faith*. They are prophets of the disaster that will befall the divisive individualism, the flabby liberalism, the impotent skepticism with which too many of their opponents are afflicted. Organization for special privilege at the public trough tends to replace organization for the common good, and the pressure group is born, sired by selfishness, curse of the world. But faith is not a commodity denied to scientific liberalism by the logic of its position, for note the educational faith of Deweyism built on a thoroughgoing naturalistic and empirical foundation. Today the leadership of the scientific group in higher education is bordering on insolvency. Freedom of instruction and research, though indispensable, is not an adequate educational platform. With a greater store of knowledge available than ever before in the history of the world, we cry for more and know not what to do with what we have. Intensity of scholarship takes the place of extensity, specialization replaces generalization as the fashion among scholars, and he who would integrate the findings of science, he who would attempt to put the scattered pieces of the knowledge puzzle together to find out what they spell—such a one today is like a prophet without honor. Yet such a project seems to promise a more substantial foundation for scientific leadership. It is designed to identify the fundamental concepts in the various sciences and the interrelations of these concepts. It is a pleasure to note that this project is going forward in the unity-of-science movement, is thoroughly empirical in character, and is consistent with the definition of philosophy as the study of fundamental assumptions and generalizations implicit in the methods and results of scientific inquiry.

A Reputation For Obscurity

Now we are ready to address ourselves to educational "progressivism" and its philosophic background.

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Professor John Dewey, acknowledged leader of this movement, has had a reputation for impenetrability since his early days at the University of Chicago. Justice Oliver Wendell Holmes once remarked that he was reading Dewey, then added that he wasn't sure what "it" was all about, but had a feeling that something important was working in that man. Then, too, it is not alone the quality of impenetrability that is disconcerting: there is the problem of quantity as well. On my desk at this moment lies a bibliography of Dewey's writings filling 68 sizable pages, and yet it contains nothing written during the last five years.

When professors of education privately confess their helplessness in the presence of Dewey's ponderous sentences, no student of education need be dismayed if darkness seems to gather over all as he essays to decipher them. Some of the reader's difficulties will stem from style of writing; or, better, from the lack thereof. Dewey gives little evidence of special care in his manner of expression. His composition is as graceless as his penmanship. Awkwardly ordered epithets and phrases, thin abstractions that cry to heaven for illustration, vast dull stretches without a glint of wit or humor, diction for which he afterwards apologizes when a critic is thereby led astray—these and other infelicities and gaucheries lie in ambush for the reader and continually deter him. Dewey is fully aware that his style is criticized, and has suggested that special difficulties of exposition are related to the peculiar nature of his philosophy. Be this as it may, with closer acquaintance, it is only fair to remark, his real greatness begins to shine through all this rough exterior and is found to rest securely on his masterly grasp of philosophic problems, his gift for organization, and the originality of his point of view.

Since 1903, when his *Studies in Logical Theory* gave the first fair glimpse of what he was up to in philosophy, Dewey has been a storm center in this field. And the storm he started has not yet fully subsided. Indeed it goes on with unabated fury, if one may judge by the descriptive and critical essays on his instrumentalism which appeared

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in 1939 in the first volume of the *Library of Living Philosophers*.⁹

Since there are numerous types of pragmatism, the term *instrumentalism* will be used to designate the particular type fathered by Mr. Dewey. The volume mentioned contains Dewey's 91-page rejoinder to some of the ablest critics he has ever had to face. It is one of the most illuminating chapters the noted pragmatist has ever done. The discussion is candid and straightforward on both sides in this book, and in spots entertainingly rough. It may console a discouraged reader to learn that even bearers of great names in philosophic circles, men like George Santayana and Bertrand Russell, may fall far short of understanding instrumentalism, according to the father of the doctrine.¹⁰

It is not certain that his critics are so completely shrouded in darkness as Mr. Dewey indicates. A careful study of their statements and his rejoinder gives one the impression that failure to agree is due in part to verbal snares and pitfalls. Moreover, the argument at times is conducted like that of two hillbillies who scrupulously refrain from touching on the original and continuing cause of their feud, though both have it definitely in mind. In the present dispute, the original cause is a difference in philosophies. The critics mentioned are avowed proponents of realism; and since realism and instrumentalism are built on fundamental assumptions that overlap but do not fully coincide, one may expect discussion to reveal areas of agreement and clear away differences that result from misunderstanding, but not so easily clear away fundamental differences, for to forsake one's foundation is to forsake one's philosophy. With the gentlemen mentioned, Dewey's only hope of complete success is to make them see a new heaven and a new earth, the dawn of a new philosophic day, and seasoned thinkers do not change their basic outlook on life the way they change their shoes.

The editor of the present volume harbors the hope, which is putting it gently, that the realistic outlook in education might be so presented that an intelligent col-

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lege student could grasp it from a reading of this chapter. Accordingly, we shall put first things first and secondary things aside, in what remains to be said, and avoid technical phraseology wherever possible, hoping thus to portray with clarity the characteristic lineaments and something of the tone and temper of this outlook on life and education.

Importance of Fundamental Assumptions

The main difference between realism and instrumentalism can be traced to a difference in the fundamental assumptions upon which they are built. All branches of knowledge rest, in last analysis, on assumptions. They begin with assumptions. Bertrand Russell found this out as a boy when he began the study of geometry under the tutelage of his brother. The skeptical pupil refused to accept some of the initial assumptions. Perhaps even then he sensed the fact that the character of the assumptions affects the character of the result, just as mathematicians, starting with one set of assumptions, develop Euclidian geometry, the kind that is taught in secondary schools; starting with other sets, they develop other geometries.

The basic assumptions of a philosopher are usually encountered in his theory of knowledge. By theory of knowledge is meant his conception of the knowledge process. A philosopher is interested, as few people are, in the question, what does it mean to *know* a thing?

It is important to consider the assumptions of an educational philosopher, for they have a determining influence not only on the nature of his philosophy, but also, as a rule, on the type of educational procedure resulting from the application of his philosophy. If education is defined as the guidance of knowing, or thinking, or learning, it seems obvious that the method of direction will depend in some degree on the nature of that which is directed, as reflected in one's conception of that nature.

The writer once read a book on the A-B-C of Einstein's theory of relativity. After the reading he decided that the title was a misnomer. In spite of this experience, he will

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now venture briefly into some of the so-called A-B-C's of the knowledge problem. Before he gets through with the venture, the student reader may be thoroughly convinced that a few Egyptian hieroglyphics have surreptitiously crept into the story. Nevertheless, let us proceed.

May we suppose that you are looking at an object; for example, seeing a brick. A psychologist would say you have a *perception* of the brick. Is the perception the brick? "Of course not," you may answer. "The perception is of the brick. It is something in my experience, a mental affair. The brick is something material, a physical thing, matter." You need not go further. If this is your notion of knowledge, it is quite a familiar one. Philosophers describe it as a representative theory. It implies that the world is composed of two kinds of stuff, mind stuff and matter stuff, and that, as usually held, neither is reducible to terms of the other. This view is not completely out of fashion. It is a general favorite with materialists and is commonly accepted, at least as a working hypothesis, by psychologists.

Now let us thicken the plot by allowing an instrumentalist to break into the conversation. He has a lot of annoying questions to ask. How do you know that matter exists? Do you ever get outside your experience? If not, how do you know what, if anything, is beyond it? And if there should be existents outside your experience, what evidence have you that what you experience or sense resembles them? If your mental brick is red, are you sure the matter brick is red? You are assuming, are you not, that you see the brick by virtue of the fact that light is reflected therefrom to your eye, and that the brick is seen as red by virtue of the fact that the light has a certain rate of vibration? But do you know of any responsible physicist who thinks the waves of light come in different colors? If not, can you be sure that your visual perception is a reliable presentation of your material object?

If you examine the impressions from the various sense avenues in the same manner, you may ultimately conclude that there is a world of existents external to your experience, but that human knowledge is an uncertain

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key to its secrets. This is virtually the position held by Santayana, an attitude of profound skepticism regarding the ability of the human mind to portray reality.

But if Santayana seems radical in his attitude toward the external world, your quiz master, I anticipate, will seem positively iconoclastic. That which was reduced to a mere object of "animal faith" by Santayana, the instrumentalist decides can be entirely ignored. He thinks it is neither necessary nor helpful to assume its existence. Santayana believes your experience is a waking dream, and that the fundamental reality of the world lies mysteriously beyond its outskirts. Dewey assumes that whatever is experienced is real in some sense, and that your external world is in truth the figment of a dream.

Now, as we have suggested, since Dewey's instrumentalism is used as a foundation for much of the "progressive" thinking in education, we should take a closer look at this philosophy in order to discern some of its educational implications. Since coverage of Dewey's philosophy would fill, has already filled, many volumes, we shall confine ourselves to what seems to be its most unsatisfactory feature, namely, its lack of a cosmology. William James, a friend of Dewey and of pragmatism, in his review of Dewey's *Studies in Logical Theory* (1903), remarked that it contains no cosmology or explanation of a "common world." James has reference, you will recognize, to the "external world" we were discussing a moment ago. The same objection has been more recently voiced by Santayana, who, in speaking of Dewey's outlook, says, "Cosmology is absent from his system." The same conclusion has been voiced in the chapters of Bertrand Russell, Hans Reichenbach, Arthur E. Murphy, Dominique Parodi, and William Savery in the recent volume, *The Philosophy of John Dewey*, previously mentioned. And Alfred North Whitehead, whose contribution to this volume has been limited to a personal tribute, has expressed the same conviction elsewhere. No realist is able to dismiss so airily the vast universe of galaxy on galaxy, each with its million suns. Professor Reisner is of the opinion that the pragmatist would agree here with the

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realist "if he took the trouble to deal consciously and directly with the problem of being." Why doesn't he take the trouble? The instrumentalist has an excellent reason. He cannot accept the realist's view without disturbing or abandoning foundational assumptions.

Basic Assumption of Realism

The primary assumption of realism may be termed the *principle of independence*. This means that, in this system of thought, things may exist, can be, without being known. The realist points out, as science seems to teach, that a vast universe of things existed aeons before man appeared on this planetary footstool, and that this universe could wag along quite comfortably, were man to disappear completely. But the instrumentalist has no place in his system for such independent reality. It is his assumption that reality is that which is experienced, and what is not experienced is denied this status. This is an adaptation of the old idealist formula, *esse est percipi*, to be is to be perceived, without the Absolute to supplement the range of human experience.

With this instrumentalist assumption in mind, one can understand many points in Dewey's philosophy which logically ensue from it. Why does Dewey decline to assume that physical objects exist prior to the act of knowing them? Your brick will serve again as an example. Most people, and particularly realists, assume the pre-existence of the object of your perception. Not Dewey. It would be a violation of the assumption just mentioned. But, you ask, how account for the content of knowledge without the influence of a prior external existent of some sort? The answer is found in Dewey's theory of creative intelligence. An act of knowledge is a creative act. More precisely expressed, an idea is a plan of action which, in operation, is *instrumental* in producing its object. Hence the appropriateness of the term *instrumentalism* as applied to this philosophy and the term *operational* as applied to its conception of the nature of ideas. Since nothing is given from without the mind, the object of knowledge *must* be constructed from within. In philosophic terminology, the

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form of experience is mentally determined; that is, it is a function of intellectual action.

The definition of education as the reconstruction of the child's experience grows directly out of this conception of creative intelligence. The mentality of a child, at first a big buzzing confusion, without form and void, gradually achieves form by virtue of the constructive power lodged within it. Intellectual or educational growth takes place in the following sequence: problem, idea, solution. A problem situation is a state of confusion, doubt, perplexity. Relief of the perplexity is, of course, the solution of the problem. This formula applies to the process of problem solving, whether the problem be relatively simple, such as, Is that brick hard? or relatively difficult, such as, Did psychology really lose its mind with the advent of behaviorism? If a child asks, "Is that brick hard?" he has expressed a problem. If he says or thinks, "I'll step over there, lay my hand on it, and find out," he has expressed his plan of action. And if, after carrying out his idea, he says, "It is hard," he has solved his problem. Note that the object of his idea is the hardness experienced. According to Deweyism it is mentally manufactured. It is a contribution to the organization of the child's experience, its reconstruction, in that it adds a new meaning to his knowledge of the brick.

The realist reacts to this picture of human experience much as Santayana does in the following passage:

This result is consistent with the general principle of empirical criticism by which we are forbidden to regard God, truth, or the material cosmos as anything but home vistas. When this principle is applied to such overwhelming outer realities, it lightens the burden of those who hate external compulsions or supports; they can thenceforth believe they are living in a moral universe that changes as they change, with no sky lowering over them save a portable canopy which they carry with them on their travels.¹¹

Or, like one of those interesting fishes that creates its own illumination in the darkness of the ocean's depths, the instrumentalist moves about in his little globe of light, as

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if nothing dwelt beyond, as if he even manufactured that which he experiences.

During the nineteen thirties this philosophy was used by certain extremists as a foundation for a type of "creative education" that, fortunately, is losing whatever popularity it had. If objects as well as ideas are the creations of an ineffable stream of activity that constitutes the basis of human personality, if there are no self-existent externalities and so no "external demands," the child can be trusted to make his own curriculum. Thus was youth taught to create its world according to its heart's desire, instead of facing reality convenient and inconvenient. Instruction served as a shield against annoyance, the instructor as a noble champion of freedom in the schools. Imposition was loudly scored from the house tops as if external demands were tokens of human servitude and discipline a pedagogical crime. But to the great credit of the majority of leaders of the progressive movement, this interpretation of creative education is now being laid upon the shelf. An unrealistic and fair-weather theory, it has collapsed from the pressures of war, the bursts of adverse criticism, and the weakening of public support.

Discipline may be unpleasant, but so is life in spots. Discipline is not favored by the realist for its own sake. It is accepted only as a necessary step in effective adjustment. It is founded on demands inherent in the nature of things. The external stimuli of which we learn in psychology and physics determine, at least in part, the nature of the objects that we know, and so the kind of behavior demanded of us. Though change pursues the changeless everywhere, there is a realistic temper in this prayer:

Dear God, give us strength to accept with serenity the things that cannot be changed. Give us courage to change the things that can and should be changed. And give us wisdom to distinguish one from the other.

This view is condemned by the instrumentalist as binding man in a servitude to things, but for the realist it reflects the fundamental justification of his readiness to "face the facts." And since out of facts the truth is born, he

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never looks with scorn on truth, as if it were an instrument of conservatives designed to keep humanity in its accustomed groove. Truth may be relative as previously stated—the realist agrees with the pragmatist that it is—but it is also the finest fruit of the process of inquiry, of which the pragmatist justly makes so much and on which his thought has been so brilliantly illuminating. In pragmatic terms, truth embraces the problem solutions of our most gifted predecessors, and since profiting by the experience of both himself and others is an acknowledged phase in the proper education of the learner, selected truths should be recognized among the leading objectives of the curriculum.

Instrumentalism and Subjectivism

Counting on the forbearance of the philosophic neophyte, we should like to mention a few problems which will probably sound technical to him, but which nevertheless give pause to many of the ablest thinkers who have examined Mr. Dewey's *Weltanschauung* with consummate care. It is the opinion of the writer that proponents of this philosophy could perform a signal service in clarification by giving further attention to these problems.

The problems to which we refer lie back of the repeated charge that instrumentalism is a subjective outlook, that, in the language of Professor Murphy,¹² it collapses in immediacy. Santayana has the same point in mind when he asserts that it is a philosophy of the foreground. The basic problem here is not a new one. It confronts every thinker who begins his system of thought with the immediate qualities of his own experience and says, like Descartes, "I think, therefore I am." Not that Dewey accepts this statement as literally valid. He doesn't. But he takes off from the same region in his philosophic flight. His philosophy grew up in a psychological universe of discourse. More definitely, it took its start in James's conception of the "stream of consciousness." This "stream of consciousness" became a stream of experience for Dewey. Hence the

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common conclusion that his philosophy never escapes the confines of psychology.

Beginning as indicated, how does an instrumentalist embrace a public fact in his philosophy? The concept of the social rests on the notion of shared experience. A shared experience implies, does it not, that two knowers can know the same thing? In what sense can such common knowledge take place within the framework of this philosophy? The importance of the topic is indicated by the fact that William James once wrote an article on it. There is now need for another.

Dewey repeatedly replies to his critics by stating that "my," when used as a qualification of an "experience," denotes a special relation of the experiencer to the experience, a relation of possession or personal responsibility, and that this relation does not make an item of experience merely personal. He insists that the item is an impersonal affair and, presumably, open to the public. The experience, however, that a thing is *mine* does not mean that it was not mine before the experience, much less that it was public. A thing, says the realist, may be experienced apart from its relations; it may be experienced in the possessive relation to the experiencer; and it may be experienced in possessive relations to two or more experiencers. The last case, the only one involving a social situation, must either be shown to have a place in the framework of Dewey's philosophy, or be acknowledged as a supplement of faith. The query of Professor Whitehead is perfectly in order: *How can there be a common world of thought without a common world of sense?* In realism the problem is solved by a meeting of minds on the same external object.

Finally, in connection with the same general problem, the charge arises that instrumentalism is solipsistic, if consistently construed, which means that, logically, the instrumentalist can know nothing but states of his own personality. An appropriate motto for him would be, *Le monde, c'est moi*. Even a tyro in philosophy can see, without explanation, that, if one's philosophy is solipsistic, one has no rational ground, apart from assumption, upon which to erect a social world. Every book he writes, every conversa-

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tion in which he indulges, is inconsistent with his point of view. He is left to silence and soliloquy.

Leftists Versus Rightists in Education

We have given attention to the major difference, as we see it, between two empirical philosophies of education, the instrumental and the realistic. But, as previously indicated, since both philosophies are scientific in their attitude, experimental in their method and inductive in their approach to truth, there is much more in common between them than a reading of the foregoing pages suggests. Indeed, there is so much in common that it would seem wise to explore the possibility of using areas of agreement as a basis for a united front in education, a front that might include many educators not formally identified with either philosophy who, from a common-sense standpoint, have felt that truth has not been entirely on the side of either contender.

In the conflict that has raged between educational leftists and rightists, in the last twenty years, the leftist emphasis on child-centeredness and the rightist emphasis on subject matter have been under heaviest attack. The left-wing activists were so restricted in their view that precious elements of the social tradition, even the truths of science, were sadly neglected. The stress on proper development of the pupil's personality seemed worthfully democratic and humane, but it was made with scant attention to the transmission of the social inheritance. Freedom was stressed as if it were a sufficient foundation for democracy, yet constitutions and statutes, customs and conventions, rationing and conscription, all talked the language of authority and compulsion.

On the other hand, the right-wing traditionalists were so subject-centered that the integration of pupil personality seemed relegated to neglect. Training in memoriter tasks edged intellectual training of the proper sort aside, and a discipline based on prompt obedience to authority was offered as the foundation for democratic citizenship, as if it were not the method of totalitarianism.

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It is apparent that there is a crying need for a liberal program that will synthesize and conserve the precious values inherent in both of these points of view. This is not to suggest a cheap compromise in violation of intelligent convictions on either side. A genuine synthesis seems possible if we can but recognize that the either-or attitude is out of place in this controversy, that few principles supported by either side are completely condemned by the other, that the opposing views differ mainly in emphasis, and that the extremists on both sides are lacking in comprehensiveness of view.

The Trend Toward Unity

The Progressive Education Association made a commendable step in the direction of greater unity and breadth of view in 1941,¹³ when it denied the sufficiency of child-centeredness as a basis for instruction in the schools. It declared: "The Committee then rejects the doctrine that the direction in which education should go, and the ends it should seek, are discernible in the child out of relation to the culture."

In 1942, Professor W. H. Kilpatrick,¹⁴ after describing the activity school as one "where the highest quality of living possible to be attained is the dominant aim," added significantly:

Many who read of this type of school get troubled over the fate of the "old line subjects," spelling, reading, writing, arithmetic, and the like. For answer we may say that excellence and exactness therein is, so far as desirable, simply another phase of good quality living. We must work for these qualities too. . . .¹⁴

More recently, a shift from the left is also observed in the position taken by the authors of Yearbook XXVIII of the National Society of College Teachers of Education,¹⁵ all of whom have been closely identified with the activity movement. These writers refer to the "virtually irreducible conflict" that has persisted for years, rightly observe that "both ideas have mellowed," "but," they add, "the pre-

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vailing status is that of compromise between them, not a real resolution of difference." The reference here is doubtless to the fact that most of the schools representing activism in the evaluation studies of Tyler and Wrightstone used both projects and subjects in their curricula.

When it is conceded by these friends of the activity school that "the amazing persistence of the claim made by the subject matters" is "more than merely the momentum of a tradition," that it is "evidence of a type of community need which will not be denied," it is in order to ask, What concession can the more conservative educators make for the resolution of this apparent impasse? It should be conceded, I think, that the contribution of the progressive movement has been an important one, and has been made in the field of *method*. This is definitely related to the preoccupation of instrumentalism with method instead of with content, and is based on the theory of inquiry found in that philosophy. Dewey's analysis of the process of knowing, learning, cognition, is unrivaled in the history of philosophy or education. From the side of the conservatives, nothing comparable has yet come forth.

The neglect of content, of subject matter, on the part of the instrumentalist group has been so uncalled for that it borders on unreason. How can one extol the excellence of a method of inquiry and decry its fruits? Indeed, the fruits of a method are the key to its value. There is no better measure of value. And the subject matters toward which the progressives are now happily taking a more tolerant attitude are but selections from the fruits of the knowledge process, of the experimentalism, which they champion.

Bipolar Theory of Instruction

If we are to achieve greater unity in educational theory, it will not be enough to recognize problem situations as points of departure and ideational activities as means of their solution. We have yet to find a place for the solutions of problems already solved, as reflected in scientific findings, social institutions, community customs, and the like. We can visualize one pole of the process of learning and

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instruction as anchored in a problem of the pupil and the other as anchored in a desirable objective. The complete process of inquiry from problem situation, through ideational operation, to attained objective should be embraced. This view has been called *bipolar* by the writer. The pattern for integration or unification suggested by the authors of Yearbook Number XXVIII has been termed *bifocal*. There is not sufficient space in this chapter for dissecting the two conceptions and pointing out likenesses and differences. It seems obvious, however, that the degree of agreement is highly encouraging. A school should win wide approval that would make the problems of the democratic way of life the heart of its curriculum; that would envisage these problems as primarily moral, secondarily political and economic; that would cultivate intelligence in the solution of both "practical" and "theoretical" problems; and would guide instruction by practice as well as by precept toward the achievement of indispensable social and individual values. The terms quoted refer respectively to ethical and factual problems as defined in the yearbook, the second being subordinated to the first, although both are fundamentally practical and, of course, call for intellectual resolution.

Among educational disputants, some confusion is still linked with the use of the phrases, "school subjects" and "subject matters." It should be made clear that one may be adamant in one's insistence on the recognition of subject-matter objectives in the curriculum, yet oppose the organization for instruction generally found in the traditional school subjects. Is it not time for ultra-conservatives to concede that a psychological order of instruction is in general superior to a logical order and should become the prevailing pattern in the schools?

Just one more point and we shall bring this discussion of subject matter, and the chapter, to a close. The point pertains to the specification of objectives *in advance* of instruction, such as subject matter to be attained or problem solutions to be achieved. Kilpatrick agrees that there is a considerable body of common knowledge and common skills that should come into the possession of an educated

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individual, but, though a bit uncertain, he does not believe that naming these in advance is the helpful way to begin. Other experimentalists, including the writer, take the opposite view. They believe that Mr. Kilpatrick's *emerging curriculum* is still too individualistic, too child-centered. The emphasis on individual demands seems so strong that many important social demands will tend to be neglected. In this connection a social demand is an item of knowledge or skill, an attitude or a principle, whose general value is uncontested, whose acquisition seems imperative. Hence the desire to have such values specified among the objectives of instruction. There is no conflict between this procedure and the theory of inquiry adopted. It merely requires that social as well as individual value shall have a determining influence in the selection of problems and the guidance of study. As a simple illustration, take a situation which I have used elsewhere. A small youngster finds himself the fortunate possessor of four impressive nickels and wants to know the extent of his riches. Multiplication is to him a foreign language. But his problem is clear: How much money have I? The answer is fixed in advance, and the type of problem might be specified in advance, without invalidating the problem approach. If the pupil concludes that four 5's are 25, the teacher will not say, in the spirit of creative multiplication, "That's good work, my boy; whatever satisfies you, satisfies me." Rather will she aim to prolong the problematic mood in the hope that her young protégé, perhaps not without a hint from her, will hit upon the method of adding four 5's, or counting the total number of fingers on four hands, or in some other way achieve a solution.

Can we agree that good instruction is basically the guidance of ideational activities from their inception in problematic situations encountered by the pupil to their consummation in individually and socially valuable objectives, the most important of which are specified in advance? Anyway, "hope springs eternal."

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NOTES ON THE CHAPTER

1. *Education and the United Nations: A Report of a Joint Commission of the Council for Education in World Citizenship and the London International Assembly*. (Washington, D. C.: American Council on Public Affairs, 1943).

Education and the People's Peace. Prepared by the Educational Policies Commission. (Washington, D. C.: National Education Association of the United States, 1943).

2. C. Hartley Grattan, "Salute to the Litterateurs," *Harper's Magazine*, CLXXXIX (November, 1944), 491-498.

3. The best critical appraisal of this movement has been written by Professor John Dewey. See: John Dewey, "Challenge to Liberal Thought," *Fortune*, XXX (August, 1944), 155-157, 180, 182, 184, 186, 188, 190.

4. William McGucken, "The Philosophy of Catholic Education," *Philosophies of Education*, Forty-first Yearbook of the National Society for the Study of Education, Part I, (Bloomington: Public School Publishing Company, 1942), pp. 251-258.

5. Mortimer J. Adler, "In Defense of the Philosophy of Education," *Philosophies of Education*, Forty-first Yearbook of the National Society for the Study of Education, Part I, (Bloomington: Public School Publishing Company, 1942), pp. 197-249.

6. Frederick S. Breed, "Philosophy of Education," *Review of Educational Research*, XII (June, 1942), 289-298.

7. John Brubacher, Boyd Bode, and John Childs, "Adjustments in Philosophy of Education in Meeting War and Postwar Needs," *Adjustments in Education to Meet War and Postwar Needs*, Yearbook XXIX, National Society of College Teachers of Education (Ann Arbor: Ann Arbor Press, 1944), pp. 1-13.

8. Professor Reisner takes a different view of the relation between education and philosophy. His historical overview in the Forty-first Yearbook of the National Society for the Study of Education has had the effect of an icy shower on the chapters that followed his. It is his thesis "that one would have difficulty in establishing a unitary relationship between any given metaphysical position and the educational consequences which are ostensibly drawn out of that metaphysical position." It is a defeatist attitude toward the philosophy of education. It may be admitted that some metaphysical principles have little or no applicability in education, and that the mode of application of the same principle may vary with the reliability and ingenuity of the philosopher and with the social conditions in which he is immersed. There may be several ways of killing a cat, even in philosophy. But to say that the neo-Thomists are deceiving themselves in linking their pattern for education with the philosophy of Aristotle and St. Thomas Aquinas, or that Dewey's educational progressivism has no necessary connection with his instrumentalism, seems like a sadly erroneous interpretation. Reisner's argument fails of conviction in handling the case of Mr. Dewey, who, as is well known, takes a position directly opposed to that of Reisner.

9. Paul Arthur Schilpp, *The Philosophy of John Dewey*, (Evanston: Northwestern University, 1939).

10. *Ibid.*, pp. 531, 535.

11. *Ibid.*, p. 259.

12. *Ibid.*, pp. 195-225.

13. *Progressive Education: Its Philosophy and Challenge* (New York: Progressive Education Association, 1941), p. 5.

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14. William H. Kilpatrick, "Philosophy of Education from the Experimentalist Outlook," *Philosophies of Education*, Forty-first Yearbook of the National Society for the Study of Education, Part I, (Bloomington: Public School Publishing Co., 1942), p. 76.

15. Kenneth D. Benne, George E. Axtelle, B. Othanel Smith, and R. Bruce Raup, Chairman: *The Discipline of Practical Judgment in a Democratic Society*, Yearbook XXVIII, National Society of College Teachers of Education, (Chicago: University of Chicago Press, 1942).

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CHAPTER IV

PERSONALISM AS EDUCATIONAL
PHILOSOPHY

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The Origin and Development of Personalism

Personalism has its origin in the Greek philosophy of the Fourth Century, B.C. It is found in Socrates' primary law of life: "Know Thyself." In Plato's idealism, the soul or person was recognized as of supreme worth. Protagoras expressed the essence of personalism when he said: "Man is the measure of all things." These early Greeks established the ideal that *mankind-persons* are of highest value, and noblest reality.

Personalistic tendencies are found in early Hebrew religion. The great contributions of Judaism are: monotheism, the belief in one universal God; and the faith that man is made in the image (spiritual) of God. The law, especially the Ten Commandments, and the prophets, particularly Isaiah, Jeremiah, Amos, Micah, and Hosea, emphasize the practical, personal, and social values of honesty, justice, mercy, and love.

In Christian theology and ethics are found the essentials of personalism. The founder of the Christian religion centered his idealism in the Great Commandment,¹ the love of God, of man, and of self. The standard — the brotherhood of man — is personalistic through and through; the

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Christian concept — service to humanity — is likewise thoroughly personalistic.

Personalism is universal in its appeal and application. Founded by the Greeks, strengthened by the Hebrews, it has been extended to nearly every nation of man. In Renouvier (French), in Kant, Schleiermacher, and Hegel (German), and in Berkeley (English) are found many personalistic teachings, and, interestingly enough, the unification and development of personalism as a system of philosophy took place in the United States of America. The term personalism was used by Bronson Alcott as early as 1863.² The man, however, who systematized, and by that token founded, personalism as a philosophy was Borden P. Bowne (1847-1910). Dr. Bowne was professor of philosophy at Boston University. His work has been carried on and extended by Edgar S. Brightman and Albert C. Knudson of Boston University, and by Ralph T. Flewelling of the University of Southern California, as well as by scores of students of these philosophers.³

The Meaning of Personalism

Borden P. Bowne developed his philosophy of personalism upon these postulates:

1. First, the coexistence of persons. It is a personal and social world in which we live, and with which all speculation must begin. We and the neighbors are facts which cannot be questioned.
2. There is a law of reason valid for all and binding upon all. This is the supreme condition of any mental community.
3. There is a world of common experience, actual or possible, where we meet in mutual understanding, and where the great business of life goes on.⁴

Herein lies the essence of personalism. The world is a society of persons; persons are reasoning beings; and there are common characteristics, similar abilities, and experiences which make understanding and cooperation the bases of human relationships. The world in which we live is a

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personal world — a world of dynamic, powerful individuals and organized groups of individuals.

Personalism seeks to examine facts of personality, find their meanings, and determine their values. Thus, even world values are found in persons. Material things and spiritual ideals have value to the extent of their use for and contributions to persons.

The nature of the world is ably expressed by Bowne, when he says:

This is not a machine and dead world, but a world of life and personality and morals and religion; and in such a world it is permitted to see visions and dream dreams, to form ideals and live in their inspirations, and to venture beyond knowledge in obedience to those "high instincts" which have always been, and still remain, the "fountain light" of all our spiritual day. ⁵

The belief, held by personalists, that persons are highest realities and supreme values, leads to the definition of personalism, notably given by Dr. Albert C. Knudson in the following statement:

We may define personalism as that form of idealism which gives recognition to both the pluralistic and monistic aspects of experience and which finds in the conscious unity, identity and free activity of personality the key to the nature of reality and the solution of the ultimate problems of philosophy. ⁶

If, then, people are of noblest reality and have highest values, we must answer the question — What is a person?

Dr. Earl Marlatt describes a person as: (a) continuous — an identity that persists; (b) complex — many traits, ideas, feelings, volitions, that is, many selves in one personality; (c) separate — incapable of identification with any other individuality; (d) social — the self in relation to other selves; (e) causative—self determining; (f) rational — a person is what he chooses, what he thinks, what he does; (g) organic — a whole greater than the sum of its parts. Dr. Marlatt summarizes his description of the person as follows:

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A person is an organic whole of reality — a microcosm reflecting the macrocosm — consisting of a psycho-physical complex, organized about an equally active, rational, dynamic center, and capable of carrying, creating and perpetuating values. ⁷

A further consideration would point to certain elements in the nature of a person, such as: (1) physical, (2) mental, (3) emotional, (4) continuous, (5) causative, (6) moral, (7) religious, (8) spiritual, and (9) social.

1.) A person's physical nature consists of a plastic growing organism. Change and growth go through three stages: (a) childhood, birth to about 11 years; (b) adolescence, from about 12 to 24 years; and (c) adulthood, 25 years upward.

Sound, physically fit persons are a challenge to the educator: hence, he must provide a certain minimum of essentials for health. Proper ventilation, light, heat, and recreational facilities would be some of the basic conditions for good health. Hygiene and first aid courses are organized around students' individual abilities and needs. Students and teachers cooperate in the establishment of adequate health rules and situations.

2.) A person has a mental nature. A person matures mentally as well as physically. The mental capacity is fully developed during adolescence, yet the learning process continues throughout life, for persons are intelligent beings. We know that one learns through experience, observation, and instruction. And while the intelligence quotient is some indication of a person's mental ability, the educator must use test scores primarily as guides in the counseling and education of persons. Let us ask ourselves the question: What is the greatest task the school can set for the students? Is it not to teach them how to think? Each person should be guided so he may use his mental capacity to the highest limit. "Nothing can exist for us," says Dr. Knudson, "except as we think it, and that, apart from its relation to an apprehending intelligence."⁸

The personalist believes that there is a close relationship between the physical and the mental. A strong body with a weak mind is an unbalanced person, whereas a

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strong mind in a weak body is seriously handicapped. Both a strong body and a strong mind are necessary for a well integrated personality, since there is a mutual dependency of mind upon body and of body upon mind.

3.) A person has an emotional nature. An emotion is an intense feeling and it involves a physical and a mental change. Emotions may be considered under two heads — the pleasant, such as love, joy, and beauty; and the unpleasant, such as hate, fear, and anger. Yet it may be better to say that an experience which is unpleasant and dissatisfying is negative; while an experience which is pleasant and satisfying is positive. Emotional responses, positive and negative, occur where there are desires and aspirations; where there is need for expression of creative ability; in the search for security; in the urge for achievement and recognition. Thus incidents of frustration, defeat, and oppression result in negative emotional responses; while experiences of security, success, and prestige produce positive emotional responses. It is therefore important that teachers and students together find ways of relieving tensions from stress and strain, and develop conditions where there is wholesome and spirited eagerness. Here again, each individual studies his needs and abilities, and strives for stable and satisfactory emotional adjustments.

4.) A person is continuous; "an identity which persists." Each person is a separate individual. He is known for what he is, thinks, wills, and does. The various natures may change, yet there is something about a person which continues. We may not see a person for many years, yet we meet and exclaim, "Why you are the same Bob I knew twenty-five years ago," and Bob replies, "Yes, and you are the same Bill." There is a separate identity which continues throughout each person's life.

5.) A person has a causative nature. Each person has the quality of self-direction and self-control. Persons are free — free for self-direction. In this regard, Dr. Bowne says:

By freedom in our human life, we mean the power of self-direction, the power to form plans, purposes, ideals, and to work for their realization. We do not mean an ab-

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stract freedom existing by itself without relation to intelligence or desire, but simply this power of self-direction in living men and women.

Bowne goes on to say:

Some traditional misunderstanding concerning the meaning of freedom must next be considered. First, it is supposed that freedom asserts pure lawlessness. This is sheer fiction. Freedom everywhere presupposes a basis of fixity or uniformity, to give it any meaning. Without this, of course, thought perishes.¹⁰

Persons are free, but not absolutely free. Men are free to choose but they are limited by their own nature and by natural, social, and spiritual laws. Each person's freedom is limited by every other person's freedom. Freedom does not mean license. One is not free to do just as one pleases, but must consider the needs of other persons.

The causative nature of the person leads to self-control. As the poet, Henley, said:

I am the master of my fate,

I am the captain of my soul.

Self-control is a rational intellectual process. The individual can control his various natures. The greater the control, the more highly developed and unified is personality. The task of education is to guide the individual so that he may control his body, his mind, his emotions — his entire nature. One's ideals and motives give reason and purpose for self-control.

6.) A person has a moral nature. Every person is born with the capacity to develop a moral philosophy. The child usually accepts the moral standards into which he is born. When he enters the school, when he joins the gang or club, as he passes through the stages of childhood and adolescence into adulthood, he develops his moral nature.

Moral standards come from such significant social institutions as the home, the church, the school, and clubs. The mores and practices of the group establish moral ideals for the individual. These mores change from time to time, from age to age, and they vary from place to place. The individual may change his moral ideals as his

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experiences and as situations change. One's moral ideals should be under constant, critical evaluation. Moral ideals should be so well established through practice that they work easily — almost automatically.

The moral nature of a person develops from a great variety of sources. The choice of sources is an individual, personal matter. Among the best sources for moral growth are: art, drama, music, literature, philosophy, religion, and one's associates and friends.

Dr. Brightman gives a clear and challenging description of the person's moral nature when he says:

The moral self ought to be consistent; ought to recognize the obligation to choose in accordance with acknowledged ideals; ought to choose values which are coherent; ought to consider and approve the foreseeable consequences of its choices; ought to will the best possible values in every situation; ought to choose coherently the widest possible range of values; ought to realize its own maximum of values; ought to choose values which are coherent; ought to recognize other persons as ends in themselves and cooperate with them in social values; ought to guide its choice by developing ideal personality.¹¹

The most important thing about a moral code is its practical use. Ideals, in themselves, have little value. Ideals are quite useless until they are used. One might learn and recite the pledge of allegiance to the flag, yet fail to be a loyal, cooperative citizen. One might read a creed and appear to be devout and pious, but unless he *lives* the ideals of the creed, his recitation is in vain. A highly moral person is one who has high ideals — ideals derived from such great statements as the Ten Commandments and the Golden Rule — and applies these ideals in his daily human experiences. Ideals are of highest worth when they are realized.

Dr. Bowne reduced his moral standards to three principles:

First. The sacredness of the individual's conscience for himself.

Second. The duty of charity toward others who differ from us.

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Third. The duty of subordinating life and liberty to love and glory of God. ¹²

Personalism stresses the sacredness of humanity. The principle, "Personality is the key to reality," applies directly to man's moral living. Personalism insists that men are basically moral. There are moral laws just as there are physical and spiritual laws. The greatest single moral ideal is love.

Describing love as the most significant moral virtue, Borden P. Bowne wrote that:

Love is higher than liberty; and I must not for the sake of liberty needlessly cause any brother to stumble. Liberty apart from love is apt to become uncharitable and contemptuous and as bigoted as bigotry itself. ¹³

In this brief analysis of moral nature, detailed study is impossible. However, desirable moral ideals may be listed, and love is at the top of the list.¹⁴ To love, I would add: justice, mercy, kindness, truth, tolerance, and cooperation. Each person will omit or add moral virtues according to his experience and need.

A rather simple standard of morality may be stated as follows: Whenever a question of morality is raised, one may answer for himself the following questions:

First. What will the contemplated act do to me—physically, mentally, morally, spiritually, and socially—now?

Second. What will it do to me in the future?

Third. What will it do to others—now?

Fourth. What will it do to others in the future?

Such principles have both subjective and objective value. They are highly personalistic and should lead to a high moral nature for the individual and society.

School standards of morals should be developed by students and teachers in cooperation. The teacher must not force standards upon the students. The students must assume responsibility for their moral conduct. A problem of discipline is a problem of school citizenship for teachers and students.

Since each person is a separate individual, moral ideals become personal. There must be tolerance of others' view-

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points. There must be cooperation as far as there is unity on moral standards. In every moral situation there are at least four possible responses: first complete agreement and participation; second, disagreement but acquiescence; third, disagreement and an attempt to change the moral code; or finally, disagreement and withdrawal from the situation. In other words, one does not have to accept the theory, "When in Rome do as the Romans do." One may not like Rome, but stay there and attempt to change it; or he may dislike Roman morality so much that he will move over to Florence.

7.) A person is religious. Personalism is theistic. Persons are of highest reality, and supreme personality is found in God. "We cannot believe in man," says Dr. Bowne, "without believing in God, and we cannot believe in God without believing in man."

Bowne clearly states the personalistic view of religion when he says:

Man himself in his essential personality is as unpicturable and formless as God. Personality and corporeality are incommensurable ideas. The essential meaning of personality is selfhood, self-consciousness, self-control, and power to know. These elements have no corporeal significance or limitations. Any being, finite, or infinite, which has knowledge and self-consciousness and self-control, is personal; for the term has no other meaning. Laying aside, then, all thought of corporeal form and limitation as being no factor of personality, we must really say that complete and perfect personality can be found only in the Infinite and Absolute Being, as only in Him can we find that complete and perfect selfhood and self-possession which are necessary to the fullness of personality.¹⁵

Personalism exceeds sectarianism. Personalistic theology has a basic theory which may be found in a variety of religions. At its best, personalistic religion is found in the Hebrew prophets and poets, in Jesus and St. Paul.¹⁶

Personalism transcends national, racial, and social boundaries. Its governmental loyalty is to the world. It loves *all* humanity. Personalism makes no discrimination based upon poverty or wealth, politics or business, religion

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or ethics. Each person is accepted in full value for what he is worth, physically, mentally, morally, spiritually, and socially. The way of personalism is the way of peace — not war; of justice — not injustice; of love — not hate; of trust — not fear; of unity — not division.

Personalism evaluates religion as low or high according to its effects upon persons. Religion based upon fear, taken blindly upon outside authority, used only on special occasions, and ending in a formal recitation, otherworldly in aim and static in content is a low religion. Religion based upon love, accepted through personal experience, practiced daily in all relationships and situations, containing a dynamic principle of action concerned primarily with the world here and now, but having hope of immortality, and a growing, vital way of thought and action — that religion is a high religion. Religion is evaluated not by numbers of members, material possessions, or earthly power, but by the practical living results in persons of dynamic, growing faith and action. There is no place for bigotry and intolerance. There must be understanding, appreciation, and tolerance of other persons' religion. The personalist will recognize and respect the American principles of the separation of church and state, and freedom of religion. We boast rightly of our "free church within a free state."¹⁷

The mere reading of the Bible by an uninterested, irreligious teacher is worse than no religious education. One cannot require another to have or "catch" religion. The root of true religion is faith, and faith comes through inspiration — not by requirement.

Whenever religion is implied in a teaching situation, the teacher must be free to consider and explain. Whenever, in the natural course of teaching, the matter of religion comes up, the teacher and students should be free to discuss the subject with honesty, appreciation, and truth. Any honest question deserves an honest answer. The teacher may not feel capable of answering a question. He may admit this fact and call in an expert in religion, or suggest that the student consult such a person.

One could not fully understand or appreciate art, history, music, literature, science, social studies, or in fact

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any of the fields of knowledge, without reference to religion. For example, a knowledge of the Bible would give great aid to an interpretation of Browning, Whittier, and Shakespeare. American education, from colonial times down to the present, has been greatly influenced by religion and by church-related schools and colleges.

A thorough knowledge of religion and a growing religious experience are important means to a well-rounded, integrated personality. Religion is a powerful force when applied as a form of growth in all the elements in the nature of a person. The personalist turns to religion for ideals for a strong body; for a pure, keen mind; for wholesome emotional responses; for continuous unity and growth; for a practical moral philosophy; for spiritual security; and for social principles. Religion is life.

8.) A person is spiritual. The term spiritual is often misunderstood. Spiritual is sometimes confused with spiritualism. The two are very different. Spiritual does not mean something ghostly or superstitious; nor is it vapory or sentimental. Neither is it blind devotion to an unknown cause. Spiritual does not mean that one wears a certain kind of clothing, or belongs to some specific organization. It does not imply that the spiritual nature is attained by a negative withdrawing from certain recreational or social activities.

We go back to the Greeks for our description of the spiritual. Plato said that the spiritual is the true, the good, and the beautiful.

Spiritual is the opposite of material, yet it recognizes and uses the values of the material. Appreciation of the material leads to spiritual realities. Whenever the material leads to truth; whenever it is good; whenever it is beautiful — there are spiritual values. A spiritual interpretation of the universe takes into account all the laws of nature, but it goes beyond. In the attempt to find truth and beauty and value (good) in the universe, the personalist finds direct relationships between the material and spiritual.

Spiritual is the possession of the highest and the best. A spiritual person is one who has attained his highest possible self. He lives the ideals of truth, beauty, and good-

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ness. A beautiful person is not measured by a single trait of his nature, such as physical or mental, but a beautiful person is beautiful in all the aspects of personality. Thus beauty becomes a composite element. The same holds also in truth and goodness. The spiritual person is not satisfied with merely "getting by." Good enough is the very best of which one is capable.

The elements of the spiritual life are many. They vary in different persons, and they change within the individual at different stages of experience. More common spiritual characteristics are: humility (which is the proper evaluation of self, consciousness of the good as well as the unsatisfactory nature of self); mercy; deep convictions; and love.¹⁸

A truly spiritual person endeavors to control anger, fear, and lust. A spiritual person can be tempted by non-spiritual elements, but he overcomes his temptations by the use of his spiritual traits.

The spiritual nature comes as a gradual growth process. One does not start out to find the spiritual, any more than a bird starts out to find the air. The capacity to develop the spiritual is within. It comes slowly through conscious appreciation and practical application of spiritual values.

While each person must find his own way to the spiritual, there are some approaches which have wide use. The spiritual requires both mental and emotional response. The spiritual is developed through an almost reverent attitude toward life and all reality. To the personalist, everything, and especially every person, is sacred. To be more specific, among the aids to spiritual growth are: a knowledge and appreciation of the world of nature; of self; and of society; art; drama; literature, both poetry and prose; music; philosophy; and religion. The definite selection of specific illustrations of any of these aids must be made by each individual person.

9.) A person has a social quality. On this characteristic, Dr. Bowne says:

When we consider our life at all critically we come upon two facts. First, we have thoughts and feelings and volitions which are inalienably our own. We also have a meas-

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ure of self-control or the power of self-direction. Here, then, we find in our experience a certain self-hood and a relative independence. This fact constitutes our personality. The second fact is that we cannot regard ourselves as self-sufficient and independent in any absolute sense. And a further fact is that we cannot interpret our life without admitting both of these facts, and to deny either lands us in contradiction and nonsense.¹⁹

Each person has a two-fold personality. The one is the individual, separate self; the other is the social self. The person cannot develop by himself in a vacuum sort of world. The person grows into his highest possible self as he participates in society. There is no such person as a "self-made man." A person is not absorbed in society. One does not lose one's self, but rather one attains one's noblest self as he becomes an active member of a social group.

The person is a member of many social groups at one time. The primary group is the family. To this may be added membership in the school, the church, and the club. Social life is based upon common interests, desires, and purposes. One selects the organizations, the social groups which he likes, and which give him wholesome, worthy experiences.

Obviously, while the person needs society, society must have persons. Plato said: "Society is the individual written large." Each man has his contribution to make, and in turn, social living develops the individual. The person grows into full human nature through social participation.

Thus, the person, the integrated personality, consists of the following elements: the physical, mental, emotional, causative, continuous, moral, religious, spiritual, and social nature.

The Nature of Education

To the personalist, education is the way to the complete development of persons. A good education is one which leads the individual and society to the highest capacities of all the nine elements in the nature of a person. Education "leads out" the individual and the group to accurate information, practical skills, and noble ideals.

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Education is a continuous process. It is a life-long adventure, and is not limited to school days. The student completes requirements for a degree and credentials, but he never ceases to learn.

Education is a personal experience. One cannot learn for another. The most a teacher can do is to set the stage, or develop a situation where the student can learn. Libraries, laboratories, and lectures are stimuli for the education of persons. They are the means by which the person comes into contact with new experiences, new knowledge, new thought — a new educational activity.

While education is a personal experience, one becomes educated by participation in group living. Education is attained largely through social contacts. The school is a social institution where persons share experiences and opportunities for growth.

The psychology of individual differences, the fact that no two people are exactly alike, requires specialization in education. There are needed specialized schools, such as trade, commercial, and professional schools as well as liberal arts colleges and universities. There must be specialization also within each type of school and in each department within the school. Individual differences require knowledge of each student, a careful, thorough system of guidance, flexible curricula and methods, and a wide diversity of educational aims.

But while there are individual differences, there are group similarities. There are many skills and attitudes commonly held by groups of persons. The needs of society are the combined needs of persons. This makes socialized education possible and practical. Education is cooperative activity for individual and social growth. The school is a social laboratory for the democracy of today and tomorrow.

The aims of education. In a personalistic philosophy of education, the students are the great objectives. This aim may be expressed in two terms: self-realization and social realization.

Self-realization is the complete development of the person in all nine elements of his nature. The educational

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program is planned so that: (1) the physical nature is developed by health practices and physical education; (2) the mental, by learning situations and the challenge to the student's intellect; (3) environments are built so that positive emotions of joy, love, and security are experienced; (4) each person is given ample opportunity to make his own identity a reality; (5) each student is given tasks and responsibilities to develop his causative nature of self-direction and self-control; (6) moral principles are developed through honest cooperation of students and teachers; the school is guided by high moral ideals; (7) respect and tolerance of any and all religions are practiced, and the implicit is made explicit; (8) the school society is organized so that the spiritual values of truth, goodness, and beauty become the experiences of all; (9) the school is a practical example of noble social living.²⁰

That which is the aim for the individual, is the purpose of education for all persons. For the individual it is self-realization; for the group of persons it is social realization. The first is personal; and the second is social. The same situation, the same methods and experiences will develop self-realization for the person, and social realization for the group.

The curriculum. The personalist would define the curriculum as any material or experience which leads to the aims of self-realization and social realization. There are three main sources of the curriculum: subject matter, objects, and experiences.

The subject matter includes the basic fundamental processes (the three R's); language; arts; social studies; music; drama; science; home economics; commerce—in fact, all subjects may be included in the curriculum. The nature and amount of subject matter would depend upon the age, abilities, and aims of each student. Only that subject matter would be included which leads to the complete development of each and all students.

The second source of the curriculum is objects, such as visual aids of all kinds; library and museum materials; moving pictures and drama which the students can see; and models, drawings and charts which they can make.

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The third source of the curriculum is experience. The personalist believes in the slogans: "We learn to do by doing," and "Experience is the great teacher." Art galleries, shop work, play grounds, kitchen, sewing room, excursions, and visitations to courts, industries, and the like are exceedingly important factors in the personalistic education. Such experiences are not "extra curricular activities." They are decidedly significant, although informal elements in the curriculum. The experience as editor of the school paper, as well as a course in journalism, is an educational element. A visit to an air field is worth more than reading a book on aviation.

Methods of teaching. It is almost impossible and entirely unnecessary to separate materials and methods of teaching. Objects and experiences belong in both categories. The personalist would use any method which leads to his aims of education. The principles of individual differences and human similarities guide in the selection of method. Methods vary with different students and different subjects. The location and equipment of the school, the resources of the community, the nature, age, and purposes of the student, and perhaps most important of all, the abilities of the teacher, determine the selection of method.

The practical value of any educational system is verified through experience. To be able to say: "This I know through experience," is to say, with confidence, "I am educated. I know." The English system of apprenticeship has much in its favor for modern personalistic education.

There will be freedom, but not license, in every educational situation. The students and teachers will cooperate in the selection of method and procedure, and they must be free to think, to express their thought and to direct their actions. Free participation is essential for good teaching and learning.

The personalistic teacher allows time for criticism and discussion. He wants frankness and honesty. He must be big enough to take criticism, as well as give it. He insists upon accurate knowledge, thorough investigation, respectful toleration, and practical cooperation.

The teacher. The teacher is a most important factor in

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the education of the student. The teacher has tremendous influence, especially with younger students. Vivid experiences with a teacher, or some particular suggestion from a teacher in childhood, may remain throughout life.

The most significant element in education is not material equipment, buildings, or play facilities. These are helpful, but secondary. The teacher holds an undisputed first place in the educational system. Education has been centered around great personalities from Socrates and Jesus to Walter Scott Athearn and Borden P. Bowne.

The teacher is more than just another person. He is a very specialized kind of person. First of all, he is an individual of high, noble character. He has profound ideals and deep convictions which motivate his conduct. He has a well-balanced, unified personality consisting of all the nine elements in the nature of a person. The greatest contribution of the teacher is not the materials which he uses, nor is it the things he says. The teacher's life is the life of his teaching.

The teacher must be well prepared. The teacher must know his subject; he must know how to teach; he must be acquainted with his students in every element of their natures; he must know the natural and social world of which he is a part, and he must know himself, his abilities and lack of abilities.

The teacher must love people, and be filled with the spirit of service. The teacher must be able to see the abilities and possibilities of his students. He must never lose the individual in the group. He must not show favoritism, although he cannot help having favorites. He must always practice fair play and honesty, and keep his promises.

The teacher must be willing to say, "I do not know," but he must not say it too often. If he is unable to answer a student's question, he must admit it, but he should find the solution to the problem.

The teacher must be in control of the teaching situation. He must rule, but not harshly. He must cooperate with his students in establishing democratic principles of class management. But after all, the teacher must remember

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that he is the person responsible for the conduct of the school.

The teacher must be a friend of his students. He should win their confidence by honesty, and students should be free to go to him on any and all problems. Counseling is a fundamental task and opportunity in the educational scene. As a friend, the teacher will be interested in the total welfare of every student. He will help his students to analyze their personalities. Where corrections are needed, he will make suggestions. Where there is lack of vision, he will open up new insights.

Counseling of the individual is largely on personal matters on problems dealing with the nine elements in the nature of the person. The student is often conscious of his need for counseling, but many times he is not. In the latter case, the counselor points out areas in which improvements would be helpful.

Group counseling deals with problems common to group life. In the school, group counseling is concerned with such general matters as: school adjustment, sharing, cooperation, how to study, how to read, and how to take tests and examinations. Vocational guidance is an essential part of counseling.

Another important characteristic of the teacher is balance. He cannot be a fanatic or a neurotic. He must have poise, dignity, and broad vision.

The teacher must be open-minded. He knows well that he does not know all. He continues to be a learner, and he guards himself constantly so that he will not become complacent and self-satisfied. He never lives on his record of the past; he wants new and better achievements.

The teacher has a profound interest in economic, political, and social affairs. He is a citizen as well as a teacher. He studies the commercial and industrial activities of the community. He votes, pays taxes, and performs other duties of a loyal member of the state, nation, and world. He keeps up-to-date on social problems and opportunities. He is a man of many interests. He finds his right place in the community.

The teacher has a good sense of humor. He must be able

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to see the funny side of life. He takes neither himself nor his students too seriously. Yet in true humility, he knows his assets and liabilities; and he is conscious of the capacities and needs of his students. A good laugh is a safety-valve for intense feelings. Of course, the teacher is always discreet, and never over-steps the bounds of intimacy. He radiates happiness. He laughs with his students. He can accept a joke — even on himself.

Finally, the teacher must continue to grow. His knowledge of subject matter increases. His evaluation and experimentation in educational method are among his constant investigations and practices. His appreciation of students as persons continues. He is ever alert. He seizes every opportunity to become a better teacher — a better person.

NOTES ON THE CHAPTER

1. *Matthew 22: 36-40.*
2. Dagobert D. Runes, "Personalism," *The Dictionary of Philosophy* (New York: Philosophical Library, 1942), pp. 229-230.
3. See bibliography at end of this chapter for sources for a thorough study of the history and meaning of personalism.
4. Borden P. Bowne, *Personalism* (New York: Houghton Mifflin Company, 1908), pp. 20-21.
5. *Ibid.*, p. 302.
6. Albert C. Knudson, *The Philosophy of Personalism* (New York: Abingdon Press, 1927), p. 87.
7. Earl Marlatt, "What is a Person?" *Boston University Bulletin*, XIV (May 25, 1925), pp. 12-18.
8. Albert C. Knudson, *op. cit.*, p. 146.
9. Borden P. Bowne, *op. cit.*, pp. 199-200.
10. *Ibid.*, p. 104.
11. Edgar S. Brightman, *Moral Laws* (New York: Abingdon Press, 1933), pp. 82-83.
12. Borden P. Bowne, *Studies in Christianity*, (New York: Houghton Mifflin Company, 1909), p. 334.
13. *Ibid.*, p. 350.
14. For a description of love as a moral value, see: I *Corinthians*, Chapter 13. Toyohiko Kagawa, *Love the Law of Life* (Philadelphia: John C. Winston Company, 1929). Henry Drummond, *The Greatest Thing in the World* (Altemus, 1898).
15. Borden P. Bowne, *Personalism* (New York: Houghton Mifflin Company, 1908), p. 266.
16. For example see *Micah 6: 8. Romans 12.*
17. Walter S. Athearn, *Religious Education and American Democracy* (Boston: The Pilgrim Press, 1917), p. 9.
18. Saint Paul lists the works of the flesh as: adultery, fornication, uncleanness, lasciviousness, idolatry, witchcraft, hatred, variance, emulations, wrath,

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strife, seditions, heresies, envyings, murders, drunkenness, and revelling. He lists the fruits of the spirit as: joy, peace, longsuffering, gentleness, goodness, faith, meekness, and temperance. *Galatians* 5: 19-23.

19. Borden P. Bowne, *Personalism* (New York: Houghton-Mifflin Company 1908), pp. 280-281.

20. For a description of self-realization, see: *The Purposes of Education in American Democracy*, published by the Educational Policies Commission of the National Education Association of the United States and the American Association of School Administrators, (Washington, 1941), chap. IV.

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CHAPTER V

THE PRAGMATIC THEORY OF EDUCATION

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The Origin and Development of Pragmatism

Pragmatism is a peculiarly modern and American philosophy, a critical and systematic expression of American culture.¹ It is the practical mentality of the frontier, disciplined and cultivated by the sciences, whetted by invention and technology, enriched by the arts, inspired by the ideals of democracy and free men, challenged by the problems of industrial society.

The term "pragmatic," in common parlance, refers to the practical, the commonplace, to expertness, to competence in business. The philosophic movement known as pragmatism is associated with the names of Peirce, James, Dewey, and Mead. It began as a revolt against idealism of both the transcendental and absolute varieties, which located "reality" and "truth" in universal ideas and in the realms of the transcendental or the absolute. According to idealism, whatever significance science or the concrete facts of experience and nature have, they derive from these realms. In themselves they have no value or meaning, no significance or status.

Beginning as a theory of meaning and truth, pragmatism has become a comprehensive philosophy, often called experimentalism. It is a form of empiricism,² that is, it locates values and meaning in experience and nature. It finds experience to be the sole source of knowledge, of ideas and significance. It is called experimentalism be-

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cause it accepts the experimental method of the sciences as *the* method of validating facts, of testing ideas. It generalizes this method and finds it applicable to all fields of discourse as the most assured method of truth getting.

Pragmatism is naturalistic.³ It assumes continuity among all forms of reality. It assumes that one can move continuously from one form of reality to another, from the inorganic to the organic, from body to mind, from the individual to the social. It assumes, in short, that all reality belongs to the system of nature, a continuous field of operations. Mathematics, for example, is a development of language, and language a development of associated living. Thus universals such as mathematical concepts are hypothetical. When applied to experimental data and found appropriate, they give rise to empirical principles. General ideas and principles derive their status and meaning from the world of concrete existence.

Pragmatism is organismic. The part-whole relationships of organisms apply equally in other fields of operations.⁴ An organism or a whole is composed not only of its parts, but of its parts in their particular inter-relationships. The parts in their turn derive their characters from the relationship they sustain to one another and to the whole.

All thought and behavior spring from problematic situations. Life is a process which goes on in and by means of an environment. It is a continuous process of maintaining equilibrium of organism and environment. Organic functions are interactions, directly or indirectly, of the energies of both. The organism does not interact with the environment at large. The process goes on in a situation. The situation is the organism at the center, continuous with that part of the environment implicated in the interaction.

Life is a continuous rhythm of balance-imbalance-balance. Changes within the situation constantly upset equilibrium, and it must be as constantly restored unless the organism perish. Behavior is a function of the total organism in the situation. This process of losing and restoring balance locates the place of need, desire, and satisfaction in behavior. Need is the condition of tension created by

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loss of balance; desire the movement to restore equilibrium. Satisfaction is the state of restored equilibrium.

From this fundamental fact of the interaction of organism and environment in problematic situations, the constant need for achieving equilibrium stems all human behavior.⁵ In psychology, logical theory, morals, esthetic and social theory, pragmatism begins with the problematic situation. Moral conduct arises when situations call forth contradictory and competing desires or preferences, when choice must be made among competing goods, when ends are in doubt. The problem in moral behavior is to choose or construct an end which most fully satisfies the competing demands of the situation. Deliberation is an experiment in imagination, trying out various courses of action or various combinations of courses of action to see what they are like. When a course of action is finally hit upon or created which most fully satisfies the situation, deliberation comes to a close. Decision is followed by action. Deliberation is the shaping of a course of action, the choice among competing preferences.

Inquiry is a phase of deliberation. It is the activity of search for and examination of the "facts" of the situation *as they may have bearing upon the competing preferences*, in order that action be relevant to the actual situation. Traditional philosophy and logic have treated inquiry as a "super" organic function which revealed "reality." It has assumed that if left to itself, if not interfered with by human bias, it would be neutral. According to pragmatism the opposite is the case. Inquiry occurs to clarify and illuminate competing preferences, to indicate the reality of the situation as it has bearing upon preferences. It arises from the excess of preference. The finding of facts, the validation of ideas is a function of need and desire, an instrument in action. Scientific method is man's funded experience in the conduct of inquiry, it is inquiry at its present best.

An experience is artistic-esthetic when the energies of the situation (personal and environmental) become so organized that they mutually support and reinforce one another. They form a unified whole whose parts are con-

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tinuous with each other yet distinct. Any experience is artistic-esthetic to the degree that it realizes its possibilities, that it is a consummation. It is artistic-esthetic to the degree that each stage of the developing experience is a cumulative fulfillment of what went before and a preparation of what is to follow. Such a developing experience is guided in its career by taste, sense of fitness, appreciation, criticism.

Thus art and the esthetic are not a separate realm of experience, but comprise the ideal quality of any experience when it is carried to fulfillment. The artistic-esthetic is the creative principle in conduct. When several items form an entity something new comes into the world. The new entity is constituted not by the several items, but by them in their mutual interrelationships. Each item is modified by its associations in the new entity. The several parts of the experience interact and fuse together to form a new whole. In the process they are transformed to create a work of art.

As we have seen, all behavior stems from problematic situations, situations that are charged with practical import. The moral, the intellectual, and the creative are all aspects of the practical. The practical refers to practice. Morals is that phase of practice which involves the resolution of conflicting desires into a unified purpose. Inquiry is that phase directed toward the discovery of the character of the situation, noting means available and obstacles to be overcome or avoided as a basis for action. Inquiry is search for connections and relationships enabling us to control the remote and complex by manipulation of the near and simple that is under our control.

*The self is continuous with society.*⁶ We have discussed the organism in interaction with its environment. With human beings it must be noted that the environment is through and through social or cultural. The self is a social phenomenon. Individual beliefs, habits, attitudes, and dispositions are shaped by the surrounding culture and at the same time, taken collectively, they *are* the culture. The organic responses of the young are shaped into patterns of conduct through their active relations with their elders.

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The culture offers them the instruments with which to cope with the problematic. As they appropriate these, they become the very stuff of their own character. At the same time, new skills and beliefs formed by individuals which cope successfully with situations are assimilated into the general culture. Thus self and culture are inseparable phases of human conduct. Human behavior is social in origin and character.

While pragmatism began as a theory of meaning and truth, it has become a general theory of practice. One might say that its central interest is in the forms practice must acquire to achieve its continued consummation. The theory of nature, or self and society, and the theory of inquiry are all instrumental to that end. For that reason, pragmatism as a theory of practice has its culmination in its esthetic theory, for it is in esthetic theory that we identify the highest form of practice, i.e. the creative. It must be noted, however, that esthetic theory applies to social conduct as well as to individualized activity. The democratic process is the creative at the social level.

Pragmatism a General Theory of Practice

Pragmatism's basic interest is the continued improvement of practice, making action more intelligent, appropriate, efficient; making thought a better guide in action. It notes the methods of thought and practice which have been tried and proven successful, which are economical and efficient in securing results and wherein they are successful, economical, and efficient. It notes those which have proven inadequate or defeating, and why they are inadequate or defeating. It is a program of inquiry into the general conditions and characteristics of "good" practice, a search for the general norms of practice as revealed in and by practice itself. It continuously subjects these norms to the pragmatic test of workability, constantly criticizing and improving them.

Pragmatism is the experimental method of science⁷ and of the arts generalized and extended to all forms of practice. The norms and principles of the arts, both "fine" and

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"practical," have grown out of their practice. Logic and the scientific method, for example, are the products of just such testing. In the long history of man, the practice of thinking reveals certain operations to be successful. They clarify situations, resolve difficulties and achieve consensus. Others lead to confusion and disagreement. On the basis of experience in thinking, men have formulated norms or conditions which thinking must observe to succeed in its purpose, and noted those which are self-defeating. This body of knowledge regarding the practice of inquiry we call logic. In a similar way, theories of practice in other arts are developed, such as politics, agriculture, engineering, education, ethics, and esthetics.

Philosophers have been called lovers of wisdom. This is the conception of philosophy here set forth. Note that wisdom is more than knowledge. It is knowledge put to work. It has specific reference to conduct, to practice. It means drawing upon that knowledge that is relevant to the situation under question. It grows out of interest in the significance of conduct; it is practical in origin and orientation.

It is common to contrast the method of science and the method of the arts. The former is usually conceived as essentially experimental, the latter as intuitional. It must be noted, however, that the artist himself is a master experimentalist. He evaluates his act by its consequences. His conclusion, his work of art, is open for examination and criticism. It is judged by how it works upon its audience. In the last analysis, its final evaluation, as in the sciences, is the consensus of those who are competent to judge it.

It is true that the artist's conclusion may not be in the form of a verbal proposition, and that it may not be tested by apparatus in a physical laboratory. But that signifies nothing. Each science as each art has its own techniques and instruments. The artist may be concerned with the expression and communication of insights and values for which language and scientific formulas may be inappropriate. The artist's studio, the poet's study, the scientist's laboratory, each in its own area performs the same function. Works of art are the supreme instance of discovery,

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creation and communication of insight, values, standards, and wisdom.

The need for a general theory of practice. Those working in specialized fields are often unaware of the actual origin of the norms in their field. They are apt to assume that norms are imposed upon practice from without by some transcendent authority, that they belong to some supernatural order, that we must first inquire into "ultimate reality" to discover the "eternal verities," the final sanctions for this life. They assume that the forms of thought and of art belong to a realm beyond experience, that experience and practice can possess meaning, value, and truth only as they conform to this order; that the authority of conduct lies outside this commonplace world.

Pragmatism denies these assumptions. It insists that life is its own authority, that practice not only can, but does, generate its own guides. Preoccupation with realms of reality beyond experience may be but a covert and unavowed effort to perpetuate institutions and to safeguard interests which experience itself no longer sanctions, with intent to give them a sanction and *raison d'être* beyond experience, and as safeguarded from scrutiny and critical examination.

Confidence in experience to achieve its own controls, to generate its own ends, is confidence in man and his power. Pragmatism locates values in the lives of men. It locates sanctions and controls in their collective judgments. It does this because it sees the

process of knowledge as a cooperative undertaking in which each person so conducts his inquiry that he can make available to others a description of the conditions in which it originated, a record of what he did and what happened, and a summary of the conclusion he draws from his investigation.

A second difficulty of specialized theories of practice lies in their isolation. A culture is a continuous web of interrelated and interdependent activities, the whole life of a people. Specialization and division of labor are necessary, each division of labor being an organic function of

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the total culture, continuous with the rest of life. These we call arts or occupations. The function of any art is defined by its relations with the rest of the culture. As the culture becomes more specialized and complex, it becomes increasingly difficult to grasp in its full sweep, to appreciate and comprehend as a whole. It becomes more and more difficult for the respective occupations appropriately to relate themselves to one another, lacking overall perspective. Special theories of practice very commonly conceive practice in mechanical and routine terms, isolated from the rest of life, failing to envision their broader functions.⁹

Occupations such as medicine, engineering, and education become at times so exclusively preoccupied with their specialized techniques that they lose overall perspective and fail to perceive their proper roles. Medicine is thus unable to reach millions with its services, engineering to maintain productions, and education to develop understanding, taste, and judgment. The special conditions under which they operate too often narrow their interest and experience and limit their perspectives of understanding, beliefs, and values. Each thus tends to have its characteristic orientation or frame of reference, its own set of assumptions as to what is true or desirable. These special conditions create emotional complexes which operate as a constellation of unexpressed premises coloring their whole outlook. They may use the same language but do not understand one another. In so far as such conditions hold, the society lacks the cohesive force of a common perspective or orientation.

Over-specialization of occupations combined with isolation, the failure of occupations to relate themselves to each other, their lack of a theory that defines their social role, causes them to become routine, mechanical, and narrowly technical. Convention, old custom, rigid institutions, and arbitrary authority become accepted uncritically. External ends are then demanded to give practice meaning and significance. Failing to locate ends where they exist, i.e. in the life process, these are projected into a transcendental realm.

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Manatabu is unexamined, uncritical practice. Anthropologists have long noted the pervasive and compelling authority of institutions, customs, mores, and traditions. Mystical potency is attributed to certain operations, objects, and persons. Luck pieces such as the horseshoe or rabbit's foot, charms, spells, incantations, and sacred objects are assumed to possess magical power. Kings, nobles, and priests possess prestige, a majesty and awe of person over and beyond natural powers. Investiture, the laying on of hands, and other ceremonies transmit this magical potency from one to another. Anthropologists have called this mysterious power *mana*. Its correlative, *tabu*, is a mysterious prohibitive or punitive power which is attributed to certain forbidden acts or objects. Horror of blasphemy and disgust for incest are expressions of *tabu*. *Mana* and *tabu* are direct emotional responses. They constitute the do's and don'ts of conventional morals. They define and enforce the privileges, duties, and responsibilities of the various castes, classes, races, occupations, and groups with respect to one another. They determine the hierarchy of rank and status in social institutions. The disabilities of the Negro in relation to white, of Jew to gentile, of foreigner to native born, are enforced by the direct emotional responses of *manatabu*.

Nor is prestige mere accident. Ruling and superior groups have perfected the techniques of prestige accumulation. The education of "gentlemen," "liberal" or "cultural" education, has traditionally been a vocational education, an education in the occupation of ruling, of maintaining and accumulating prestige, in acquiring the social symbols of power and status. As Veblen has effectively shown, conspicuous consumption is a technique for acquiring repute for power and standing. The whole machinery of polite "culture" is employed to establish institutional sanctions and their hierarchies of rank and status. Consequently, under these circumstances philosophy rationalizes and justifies, religion sanctifies and blesses, literature and the arts celebrate and glorify, and law, custom, and morals enforce these differences in rank and social distinction, privileges and disabilities. Manners, morals,

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tastes, beliefs, institutions, customs, and personalities are colored by *manatabu*.

Technology is the expression of economy of means.¹⁰ The social process consists of two distinct qualities usually inseparably mixed together, *manatabu* and technology. In its simplest terms a technology is a way of doing things, an art. Since technologies are instrumental, they are judged as instruments, by the economy of means they employ. The term has been associated with machines and routine operations. Pragmatism, however, would return to its earlier usage and extend it to cover any operation in which the principle of economy of means is observed.

At bottom, pragmatism is an effort to substitute science and technology for *manatabu*, to extend technology to every phase and form of practice. It conceives the entire social process as a continuum, the culture as the totality of human practice. It would extend to the whole culture those traits which characterize best practice. Thus is pragmatism a general theory of practice and technology.

The ends of practice are located in practice. One may ask, since science and technology have to do only with means, how they can throw light upon ends and values. May not *manatabu* after all be the most appropriate means to the ends it serves? How can technology affect ends? The answer is twofold. We judge ends by the means they involve, we judge them by the consequences they produce. We criticize any end in terms of what it costs, whether it demands so much in the way of means that we do not have the means for other ends. We also criticize an end in terms of where it leads, whether its consequences further or frustrate other ends.

Ends are really endless. Nothing is merely an end in itself. The end of one course of action is a means to what comes after.

Courses of action interweave into ever more and more comprehensive courses of action until they include our entire life. Moreover, our lives as individuals are interwoven into the lives of the communities to which we belong, the lives of the communities into the life of the nation, and the life of the nation into that of all mankind.

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Thus our action is always laid in the context of a complex community life which in turn is in the context of the culture. Our individual lives are caught up in the stream of history. Thus it would seem that they and their individual acts can be judged only against this stream.

But, it may be objected, no one can comprehend the whole course of human history. How can one intelligently orient one's action to such a broad and vague end? Granting that all other ends are intermediary and instrumental, how can one evaluate them as instruments? A reasonable question. It is clearly impossible to grasp the totality of experience and nature. The effort to do so and to place the ends of life in the totality has always led to some form of absolute which transcends any particular experience. Were we to locate the ends in the totality of life, we should sacrifice the experimental method and fly into the arms of *manatabu*.

It does not follow that pragmatism is void of ideals and lacking in guidance toward conceptions of a better life and a better world. To make such an assertion is tantamount to saying that man is incapable of learning. Present practice is of course built upon the fruits of previous practice. If we are conscious of desirable things, it is because previous practice, previous living, has taught them to us. The values of the democratic way of life, for example, have not been handed down to us from on high; they are our sublimation of lessons learned in the practices of human relationship. It is similar with regard to values in all spheres of life.

Values thus enter into all practice. We project them into the future as aims of present practice. We judge any practice upon the criterion of its workability — whether it contributes to what we have discovered to be desirable. But knowing that our values have been evolved through previous practice, through all history, we know that present and future practice may change them. In fact we see this change going on in contemporary time to an unprecedented degree. Thus there is an inevitable flux of values and of practices, and it is this fluidity which opens untold possibilities to the creative mind.

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To education the task seems clear. It is to define the values that experience has revealed; to inculcate the skills, technologies, and intelligent procedures of effective practice; and to encourage that progressive employment of practice that will yield new discoveries and expanding insights in our quest for the greatly satisfying in human experience.

Pragmatism and Education

Means and ends are points in a continuous process. We have pointed out that the life process is a continuous affair. At its best each stage is a fulfillment and consummation of preceding stages, and at the same time a preparation for those to come after. Each stage is a joy in itself, and at the same time forges the instruments for increasing control over later experience. Thus means are ends when viewed from an earlier point in the process, and ends are means when viewed from a later point. Neither performs its proper role unless it be treated as both means and ends.

Mrs. Jones teaches piano to young people in the community. Her teaching has become a lively subject of discussion and even controversy among the parents of her pupils. They are generally agreed that their children are interested, and that they spend more time than previously at the piano, but they disagree as to the soundness of her method. Many of them are worried because the old methods seem to be violated: there are no long practice periods on graded finger exercises; the children are allowed to play what they want, which is "bad discipline"; the lessons don't have the quality of hard work.

But let us examine Mrs. Jones' method for ourselves. The Cook girls, Irma and Jean, who had some previous piano study, started lessons with her. Mrs. Jones began by asking them to play the music they most enjoyed. She asked them about their previous instruction and learned all she could of their musical interests and abilities. She inquired further into their other interests — literature, art, sports, social and family interests. She tried to get a clear conception of each of the girls as personalities.

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She then began to play for them music which she was sure would appeal to them. She was a brilliant performer both technically and interpretively. She not only appealed to their existing tastes but opened up new worlds of beauty. They discovered new horizons of music and a range and depth of experiences which they had never suspected. A part of each lesson was such an experience. In this way, the girls developed an intense love of music. They discovered in music not only a medium of expression but a form of experience of infinite variety, depth and color. They found it a medium of growth and constant discovery of themselves.

Mrs. Jones asked the girls to select from among several pieces which she knew were within their ability, a few which they would like to work out so that they could not only play them technically but interpretively. As the girls played these, they noted certain technical difficulties. They were then referred to specific exercises which would help them over these places. As they mastered them technically, however, they still recognized a great difference between their playing and Mrs. Jones'. They wondered why this was.

Mrs. Jones said, "Have you seen a Shakespearean play which you had read aloud in school? Did you notice the difference in the actors' reading of certain selections which you had read, and your own? You had learned to pronounce the words. The actor had learned to pronounce ideas, attitudes, sentiments. So it is here. You have now learned the words. But music is a matter of mood, sentiment, feeling. You must learn how to say them now.

"Your only reason for learning techniques is that they are vehicles for expressing ideas and feelings. You must now learn how to use them for that purpose. Hence, I want you always to play your pieces interpretively, never as a technical exercise. Strive always for the finest expression of your present skills both technical and interpretive. Never strive merely *for* skill; *use* the skills you have as instruments of beauty. Assume the role of the creative artist, whatever you do.

"The composer is not the only creative artist, nor is the

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concert artist. Anyone who uses his skills as a means of expression, as a means of communicating sentiment, mood, and experience of beauty is a creative artist. Never let yourself get into a mood of the routine, the mechanical. Even when you work on techniques, use them too as means of expression. Never permit yourselves to practice techniques as mere routine. Techniques are instruments. Make them serve their ends.

"Finally, be yourselves. Don't try to be something you are not, nor to express something you do not yourself feel. There is no *one* interpretation of a composition. There are as many interpretations as there are performers and moments. Feelings and moods are as infinitely varied as situations and people. No two are identical. To be creative, you must be true to yourself and the occasion. Use the composition as a medium for expressing what is in your own heart at the time."

She repeated this advice many times on appropriate occasions, as it might help them to solve specific difficulties. She constantly urged them to use their own sense of beauty as their surest guide in the perfecting of skills. Techniques were suggested only as aids in expression. A wide range of musical interest was developed without, at any time, an effort to dictate particular interests. In this way, they cultivated a wide range of technique also. Always she urged them to make their practice a joy in itself, never a mere preparation for future use.

The girls became absorbed in their music. Although they still enjoyed popular music, it was no longer an obsession. After some months, Irma found Chopin her favorite composer while Jean preferred Mozart. They came to find their technical exercises satisfying, as not only means of solving their technical problems, but as offering media of expression. They enjoyed playing for any audience that would listen, or for themselves alone. Their friends would often remark that they made their piano fairly talk, that their performance was moving, stirring, that it was an experience to listen to them.

The above illustrates the continuity of means and ends in practice and in learning. Practice at each stage was both

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a consummation of previous practice and a preparation for later practice. Appreciation, enjoyment, sentiment, and technique were assimilated in skill, no merely continuous with one another but inseparable.

Let us now analyze the above as a learning-teaching situation:

1.) Appreciation, interpretation, and technique were practiced and learned simultaneously, thus avoiding the usual impossible attempt to teach and learn them independently of one another.

2.) Practice was experimental. Expressive and communicative needs served as constant guides in selection, rejection and shaping of technique and interpretation, in determining what should be used and learned. Hence, practice was a constant trying and shaping, judging and valuing in terms of consequences, effects.

3.) Practice was fixed (learned) by use, as skill. The intensity of satisfaction resulting from use determined the intensity of fixation (learning). Since practice was appreciative, was enjoyed for its own sake, learning was efficient. Appreciation acted as both magnet to attract and glue to hold new learnings.

4.) The intensity of enjoyment was sufficient incentive to self discipline. Since the experimental attitude involved search, inquiry, and criticism, it was sufficient guide to self discipline.

While this illustration primarily involves the development of skill, appreciation, and interpretation, the same principle maintains in learning information, in developing ideas and meanings. This principle is the integrity of experience or practice. Information and ideas have relevance and meaning only in the context of problematic situations. They should be learned as instruments, i.e., as phases of a developing skill or practice. Even the above example involves information, ideas, and meanings, but they were developed simultaneously with appreciation and technique as integral phases of a developing practice.

Education is growth in practical judgment. We noted previously that all behavior springs from problematic situations. Life is a continuous process of losing and re-

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storing equilibrium of self and situation. Practical judgment includes all those efforts of search and inquiry to ascertain the facts of the situation, to resolve contradictory ends into a coherent purpose, and to develop a program of action appropriate to purpose and fact. Thus practical judgment is at the basis of intelligent practice.

Growth in practical judgment is at the heart of the continuous growth of practice in meaning and power, hence, the essence of education. Growth in practical judgment involves growth in taste, principles, ideas, information, and skill, as well as discipline in methods of thinking. Experience in judging is the necessary context in which to learn them. Actually they are but abstract aspects of developing practice and lose their meaning and function when treated in isolation.

The following account does not involve a particular classroom situation, but it does reveal the operation and growth of practical judgment. It reveals the manner in which desires, facts, ideas, principles, and skills interact with each other in resolving a problematic situation. It reveals the shaping of purpose out of a medley of contradictory desires and attitudes; the reconstruction of attitudes, tastes moral principles; the assimilation of information and the organization of facts, ideas and interests into a coherent program of action. It also shows the growth of discipline in judgment itself, the deliberate cultivation of the skills involved in judgment.

Robert Jenkins graduated from a small town high school in the middlewest. His father was editor of the local newspaper, and was ambitious for Robert to become a newspaper correspondent and writer. Robert had given his father some encouragement by his developing interests and his writing as a student. His mother was an ardent pacifist. She instilled an intense hatred of war in her son and had encouraged him to take an active role in student pacifistic organizations.

Robert entered college with enthusiasm, eager to take an active part in its life, to justify his parents' faith and to fulfill their hopes. By the end of his first year, he was recognized as one of the student leaders. He was an officer

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of a student pacifist organization and of the Campus Republican Club.

In his sophomore year he had a course in philosophy with Prof. Ryan, whom he came to admire greatly. Prof. Ryan was particularly interested in logic and the scientific method. He was convinced that the ills of the world could be cured only if people would develop a scientific attitude. Robert came to share this faith with him and assiduously cultivated scientific habits of thinking. Needless to say, this frame of mind challenged many of his pre-conceptions, leaving him in a general state of doubt. He had accepted the idea that to know the truth was to be free, but he finally began to ask himself, Free for what?

He had come to question many of his father's social and economic ideas. He was not so sure about his mother. He still accepted her pacifism and her general Christian ethical outlook, although he no longer could agree with her religious ideas. But he couldn't see how facts could validate his ideals. His study of anthropology revealed the operation of customs, mores, and institutions, and raised the whole question of ends.

In his junior year he took a course in contemporary history. He studied the Russian revolution and the abortive communist uprisings in Germany and Hungary. He studied the rise of fascism in Europe and militarism in Japan, the conquest of Ethiopia and Manchukuo, and became interested in Japan's more recent moves in China. He became absorbed in the Spanish civil war, and deeply disturbed by the march into Vienna. He watched the Henlein movement in the Sudetenland with anxiety.

Recognizing the fundamental threat of fascism to world peace, he took a seminar in the Political Science department on "Contemporary Political Movements." As a result, he became more devoted than ever to democracy, but came to question very seriously some of the economic principles and ideals which he had hitherto associated with democracy.

It upset him that fascism was supported by certain church groups, by large landowners, and by the groups generally which he had hitherto considered respectable.

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With Munich and the subsequent collapse of Republican Spain and the march into Czechoslovakia, he was thoroughly frightened. Here was a threat to everything he had ever held dear. Could facts, cold facts, justify his ideals, his hopes?

He discussed his fears and doubts with his parents. His father was upset by some of his son's ideas. He saw no reason why America should be disturbed by fascism, or why we should meddle in Europe's quarrels. His mother tried to understand his questions but was really worried that he should have any doubts about the "eternal verities."

He was sorely troubled. His sympathies were divided. He hated fascism bitterly and feared its threat to the world. At the same time, he hated war and the thought of wholesale bloodshed. Yet he saw no way to stop fascism without force. He continued to feel the deep hold of his mother's Christian ideals and the ideals of American democracy. But he asked himself whether these ideals had any other force than that of custom and mores.

He felt a great pride and affection for America and her achievements in democracy. He also felt the sublimity of Christian idealism.

The very thought of fascism and all it stood for nauseated him. His very idealism, however, divided his energies. How effectively resist fascism without betraying his ideals, and how be true to his ideals and not resist it? Moreover, how could he be sure that his ideals and principles were less arbitrarily grounded than were those of Soviet Russia, Nazi Germany or militarist Japan?

Recognizing that his other problems depended upon it, he concentrated his thought and study upon the problem of validating moral principles and ideals. He was at first tempted to accept a supernatural solution and locate them among the "eternal verities" revealed through religion. However, his training in the scientific method and in anthropology caused him to reject this solution as escapist.

In the course of his study, he came upon the experimentalist theory of value. He came to judge ideals and principles by their consequences. He judged them by their capacity to support and sustain one another. He found he

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had to make two basic assumptions which he readily made, that life is good, and that life can generate its own guides.

He found himself forced to define the good life, i.e., a life with the greatest measure of consistency and vitality. Recognizing the interdependence of individuals, groups and nations, he was led to define his goal as the "good society" or the "good world." He was led then to judge principles and ideals by their capacity to sustain a harmonious and vigorous society and world order.

During this speculation and study, he identified the operations and phases of judgment and deliberately cultivated skill in them. However, it would lead us too far afield to follow him here. Sufficient to note that he disciplined himself in judging while attacking other problems.

By this time war had been declared, Poland overrun, France, Belgium, Holland, and Norway invaded. The full terror of nazism revealed itself in the air war. He was as deeply moved by the moral depravity, the social disintegration which the quislings symbolized, as the physical terror of Warsaw, Rotterdam, and London. He saw these same quislings at work in both North and South America and recognized the inevitability of our eventual participation.

His scruples against war were overcome by this recognition of the consequences of failure to resist fascism. He no longer feared our being drawn into it, but prayed that we would get in effectively before it was too late. As a consequence of his own deliberation and the logic of events, he enlisted in the summer of 1940. But he was disturbed about America. Would it awaken to its danger in time? Although he was shocked by Pearl Harbor, he was even more relieved for now he was sure America would see her true interest and stand by her guns. He felt that he and America had at last resolved their most profound problem and were ready to throw their entire energy into the conflict.

With certain variations the above might be the story of many intelligent, conscientious young Americans during a great national and world crisis. It is told here to illustrate

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the operations of practical judgment, the growth of character. It is necessary that teachers be aware of the broader context of schooling in the wider educative processes of personal development and of social and political affairs.

Following are some significant aspects of this story for teachers.

1.) Practical judgment involves the entire character. Competent judgment gives the character maximum control over its own development.

2.) Character is a function of 'social relationships'. Here we see the role of parents, teachers, school activities, and the force of events in the education of Robert Jenkins.

3.) Activity sprang from a problematic situation which involved (a) an effort to discover the facts of the situation and their implications for interests and ideals; (b) an effort to formulate and clarify purpose in order to resolve conflicting desires; (c) an effort to formulate and carry out a program of action in accordance with facts, principles, and purposes.

4.) The process was experimental. Ideas, ideals, facts, and attitudes were tested and evaluated in their interactions with one another and by their eventual success in resolving the problem. They were reconstructed, shaped to and by the needs of the situation. They were learned simultaneously, their functional values discovered in their interactions with one another as phases of a developing program of action.

5.) Experience in judging promoted self discipline in judging.

6.) Schooling at its best takes into account the judgmental needs of students. Schools cannot hope to encompass the intellectual, moral, and esthetic life of young people. Hence, they should be alert to that life and its specific needs and attempt to serve them. The best they can do is to identify the operations of judgment and help young people cultivate them in connections with their own problematic situations.

Education is growth in efficient skills. The preceding examples of learning illustrate the idea that the outcomes of learning situations should be defined in terms of new

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ways of acting, new skills. They further emphasize the idea that skill or practice involves the whole character, that beliefs, attitudes, ideas, and information are functions of practice, and outside that context are but abstractions. The criteria of skill are economy and fitness. Actually they come to the same thing.

The failure to recognize their integrity in practice springs from an error which has vexed philosophy and confused psychology and education for centuries. This error is the assumption that mind and body are totally different substances. Having first assumed that mind and body, spirit and matter, belong to two distinct realms, philosophy has been confronted with the problem, how two totally dissimilar substances can be related to each other.

The root of the problem lies in the false identification of mind with verbal activities in isolation from the rest of behavior. The problem disappears when it is recognized that verbal activities (mind) perform their roles as functions of other behavior. In place of the general problem of the relation of mind and body, we now have the specific problem of appropriately relating verbal and other action in concrete situations, i.e., discovering ideas and information that are relevant and workable.

Verbal learnings, i.e., information, ideas, and theoretical materials, independent of any practice, are inert. A world of theory is created which is assumed to be in some way superior to the practical world. Yet the real world goes its own way. As young people discover the irrelevance of things they had learned to the world of affairs, they become disillusioned, cynical.

Theory should enlighten and guide practice, not confuse it. It can do this only as a realistic interpretation of the world of affairs. But theory can be such an interpretation only as it is learned as an instrument in practice. Learning should be an experimental reconstruction of practice in coping with problematic situations. The value and relevance of learning is to be determined by their consequences in action. Their final criterion is whether they produce more efficient practice. Thus, relevance is as important a consideration as truth.

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Many of the most perplexing problems of teaching and learning would disappear once we were able to relate the materials of learning to problematic situations and their resolution. The above examples illustrate this principle.

*Education is discipline in the practice of democracy.*¹¹ Practical judgment at the social level is the democratic process. Institutions, communities, and nations make decisions, form policies, and develop general ideals. The validity of any judgment is located in the common agreement of all interested parties. A decision, policy, or ideal which violates the interests and ideals of any group is in so far inadequate. Not until the interested groups of the community have inter-persuaded one another, until they have arrived at consensus, is the judgment valid.

Education in a democracy should be a discipline in the process of inter-persuasion, of group judgment. Study of the structures and processes of political institutions has some value, but only as it is an aid in group judgment. Education in democracy begins with an indeterminate or generally controversial situation, and should cultivate the method essential to its resolution. The following is an oversimplified analysis of such a method.

- 1.) Agreement upon common purpose is central. There can be no enduring agreement until the parties share a common purpose. The interaction of the several purposes of the different members enriches the entire group, enlarging the outlook of each.

- 2.) The quest for new facts and examination of asserted facts is essential to test the ideas, ideals, and moral principles advanced in support of proposed objectives. The search for facts is essential to clarify the nature of the situation and to reveal the costs and consequences of alternative purposes and programs of action. Only as the group is clear as to the possibilities and limitations, resources and obstacles, can it resolve its purposes.

- 3.) Judgment is not completed until a program of joint action is agreed upon, carried out and evaluated, until the program is tested by its consequences. It is the test of consequences that disciplines and makes judgment responsible; that causes the participants to look back upon the

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process and relate it to its consequences. This phase of judgment is a fusion of the noted and relevant facts of the case including desires, ideals, and moral principles. The program of action is the spelling out of their operational meaning as they interact with one another.

Although we have distinguished among these phases, they should be recognized as abstractions for the purpose of analysis. Actually they have no independent existence from one another but are fused together into a single process.

Competent participation is the essence of democracy. Competence can come only from discipline in the democratic process. Scientists are judged, not by their knowledge of scientific facts and principles, but by the power of their method. This power is the product of discipline in scientific method. Schools can educate for democracy only by discipline in the democratic method, the method of inter-persuasion, of achieving consensus.

These principles can be made to operate in the school in various situations. They should prevail as common practice in dealing with social problems as they arise in the course of the curriculum. More and more thoroughly they should characterize the social studies as pupils advance in maturity. But under the advice and leadership of competent teachers we should find these same practices in the school clubs, student organizations, and student-body government. Indeed, they should operate among teachers, supervisors, and administrators, mutually, in the determination of school policies. Only by discipline in democracy can we learn to be democratic.

Education must be creative. Learning can be creative only when teachers are free to allow children freedom and to guide them in that freedom. In the last analysis, teaching like learning must be creative, the work of an artist. Learning and teaching must at each stage be immediately significant and a preparation for the future.

Memoriter instruction, repetitive drill, produce only routine habits, the chief enemy of the human spirit. They neither know nor care where they lead. Rules and facts learned by rote are inert and irrelevant in the presence of

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novelty. Lacking in imagination, they resist adaptation to new circumstances. Like the old foggy, they resent and resist change. They are fearful of life and spontaneity. Fixed habits not only restrict the growth of the individual, and make disposition and character rigid; they are fatal to judgment and creativity.

Discipline in the creative act and in the democratic process must be the method of learning in a free society. Subject matters can perform their proper role in such learning only when acquired as instruments in the resolution of problematic situations. The life of the community must be the context of such learning. The school itself should be a democratic community in order that it initiate the young into the highest forms of practice.

NOTES ON THE CHAPTER

1. See John Dewey, *Philosophy and Civilization* (New York: Minton, Balch and Company, 1931), chap. 2.
2. William James, *Essays in Radical Empiricism* (New York: Longmans, Green and Company, 1922).
3. John Dewey, *Experience and Nature* (Chicago: Open Court Publishing Company, 1925).
4. J. S. Haldane, *Mechanism, Life and Personality* (New York: E. P. Dutton and Company, 1923).
5. See the following by John Dewey: *Logic: The Theory of Inquiry* (New York: Henry Holt and Company, 1938), chap.'s II, III, IV, VI; *Human Nature and Conduct* (same pub., 1922), part III; *Art as Experience* (New York: Minton, Balch and Company, 1934), chap. II.
6. William H. Kilpatrick, *Selfhood and Civilization* (New York: The Macmillan Company, 1941); George H. Mead, *Mind, Self, and Society* (Chicago: University of Chicago Press, 1934); John Dewey, *Human Nature and Conduct* (New York: Henry Holt and Company, 1922).
7. For a discussion of the scientific method, see chapter XVI in this volume, by C. C. Ross.
8. John Dewey Society, 7th Yearbook, John S. Brubacher, ed., *The Public Schools and Spiritual Values* (New York: Harper and Brothers, 1944), p. 65.
9. See John Dewey, *Art as Experience* (New York: Minton, Balch and Company, 1934), chap.'s XII, XIII; *Experience and Nature* (Chicago: Open Court Publishing Company, 1925), chap. IX.
10. Clarence E. Ayres, *Theory of Economic Progress* (Chapel Hill: University of North Carolina Press, 1944), chap. VI.
11. See chap. XIX, "Democracy and Education," by P. F. Valentine, especially pp., 398 ff. for a discussion of the pragmatic principle of experimentalism in democratic education.

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CHAPTER VI

CATHOLIC THEORY

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Education makes changes in pupils. Education helps in the upbuilding of knowledge, habits, and appreciations that accumulate into a mature personality. Education strives toward perfection. It leads out the powers. It is more than simply "something confined to school rooms." Education is an action, a function, a developing of the student by himself alone or helped by the teacher. Education is the systematic development and cultivation of the powers by instruction, discipline, and example.¹

Now all these and many other similar definitions are general enough to be accepted by all. And yet when it comes to the working out of these theories into the practical concrete activity that is education, one's deeper attitude and outlook on life will require a more refined and specific statement of one's theory of education.

Catholic Education Both "Protestant" and "Catholic"

It is peculiarly true that Catholic education is both protestant and catholic. Because of this paradox, Protestants and Catholics alike can be sympathetically interested in Catholic education. Catholic education is "protestant" because it protests against partialism, exclusivism, separatism. Catholic education protests on the ground that it is

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"catholic," that is, because it is universal in its outlook, whole, all-inclusive, complete. Thus a general definition of Catholic theory will have to be qualified not by a partial restricting of general terms but by insisting that the complete meaning of those terms be translated into the educational function.

Definition of the Catholic Theory of Education

We can say then, that Catholic education consists in all those activities produced within the pupil through learning and teaching by which personality, institutional progress, and Christian civilization are achieved—personality, in so far as all the physical and mental qualities are developed in the individual; institutional progress in so far as the individual is developed as a social being so that he becomes a good student, an industrious worker, a loyal citizen, a good Christian, and a devoted member of his family; and Christian civilization which outwardly expresses itself in every form of social mental striving toward human perfection.

In his book with the provocative title *What Is Education?* Edward Leen answers his own question by saying that

to the Christian "education" is that culture of the mind, the will and the emotions, which, while adapting a man for the exercise of a particular calling, disposes him to achieve an excellent personal and social life within the framework of that calling.²

The overall daily aim in education is to make strong and independent students, to arrange domestic, religious, civic, industrial, and particularly school environments that will encourage those self-activities that build principles within the pupil and which, becoming part of his personality, serve to guide him concretely from within toward happiness. The child depends on teaching-guidance. But if the teaching performs its full function of imparting information, of stimulating thought, and of aiding in the development of skills and in the training of the

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student's powers, there follows true learning in the pupil through the self-activity that produces principles of knowledge, habits, and appreciations, which collectively form, mature, and integrate his personality.

Purposes of Education

To appraise rightly the Catholic theory, we shall have to discuss briefly the various purposes that can be served by education. The supreme or ultimate purpose of anything is one that remains throughout, that activates all experiences, never ends, is present always. Immediate purposes should of course point toward their ultimate end.

The supreme purpose of education is the perfection of man. The true perfection of man as the main objective of education is frequently unattended to in the struggle to achieve more immediate ends. Those more immediate ends, instead of serving in their turn as means toward the ultimate purpose of education, can usurp the position of the ultimate end itself and thus bring about disorder in place of order.

The immediate purposes of education include: the operation and improvement of a suitable plant composed of buildings and equipment; the location of the school building; the activities of teaching and learning; various relations expressed in the schedule, in the curriculum, and in the arrangements of departments, the relations of education to the community, and the ability of education to respond to special needs, such as military preparations, the while retaining its overall integrity. The immediate result accomplished by education is an organization—what we call school life—a smooth running, efficient teaching and student accomplishment.

The organization of an educational unit (system school, class) may be likened to a living, concrete unity, an organism whose organs or parts healthily cooperate toward the true welfare of the whole. In every living body, an organ is only a part, a means toward the ultimate intrinsic end which is the welfare of the whole organism.

In educational life every part should be a means to-

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ward the ultimate, supreme end. Like organs of a body, all subjects taught and all departments of education should function harmoniously with the other parts and not carry on selfishly as if they were ends in themselves heedless of the welfare of the whole. The ultimate intrinsic end of the whole educational unit is its own essential perfection, that is, the achievement of a more perfect educational institution. This perfection implies educational activity, a fluid, continuous, structural, moral unity, a perfected organization composed of human beings—faculty and students employing as instruments the lands and buildings and equipment of a school.

Out of all these purposes, for emphasis, we point to the great essential purpose, the ultimate end of education—which is the perfection of man. Agreement on this would seem to be unanimous. Where disagreement arises is in how man can be truly perfected. The key to the secret would seem to be found in an accurate knowledge of the nature of man, for it is man who is to be perfected.

Man a Microcosm—Perfectible as Man, Animal Plant, Body

If unified on a proper basis, all branches of knowledge can contribute to the knowledge of man's nature, for man is a microcosm having something in common with all other beings of the real world. To know man, we must study not only man, but all other beings as well, since all beings are related to and help explain man. Man possesses the forces of matter, the vegetative powers, the animal powers, as well as the abilities to think and will. Therefore the knowledge of all bodies, plants, and animals helps us to understand man better. A knowledge of all reality from the various angles of the different branches of knowledge not only satisfies man's innate curiosity and gives him control over his environment, but most important, it can contribute toward a fuller knowledge of what man is, whence he comes, and why he exists.

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All Branches of Knowledge Contribute to a Knowledge of Man

If man approaches the study of the universe with no other objective than a specialized knowledge of one phase of reality, he merely departmentalizes knowledge. He becomes a specialist separating knowledge into neat, airtight compartments unrelated to the rest of knowledge. He develops the organ without regard to its function toward the welfare of the whole organism. Distinction of formal objects is commendable, in fact it is necessary if order is to be had in the general pursuit of knowledge. But separation of the branches of knowledge without attempt at unification is a perversion. Might not this be the prevailing fault in much of educational theory today?

We would submit that all the sciences must contribute toward the breaking down of the thing and its upbuilding in the mind. In this activity, the mind may be compared to the mechanics who dismantle and then rebuild an airplane. The airplane is taken apart to be crated so that it will fit into the hold of the ship that is to transport it across the ocean. On arrival at its destination the parts are taken from their crates and assembled. If some vital part were not put together with the rest, the airplane might seem complete, but it probably would not fly, or not fly properly and safely. So with mental concepts that are the parts of a reality crated in the hold of memory. If we do not perceive the fulness of the reality, our knowledge will fail of its full purpose. Surely, at least metaphysics must accompany the knowledge arrived at through the other sciences—the physical, mathematical, logical, and ethical—if we are to represent the thing fully in the mind. Once having broken up the thing mentally, we should put it together again fully. And if all the sciences collectively are not adequate for fully understanding man, his origin, and his reason for existing, is it reasonable stubbornly to refuse audience to divine revelation?

The Total View Helps to Perfect Man Fully

The ultimate purpose of education is reached by per-

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fecting the individual human beings who constitute the school. But the perfecting of men cannot be fully achieved if the school fails of its purpose in an essential function. The work of analyzing reality into the various subject matters is done well in education. But is there not reason to point out that after mentally slicing reality into the different branches of knowledge, we have left each division to work for itself, so that education today in its end-product turns out good political scientists, good economists, good engineers, good biologists who, however, are too often left without the total view of life?

To put our finger on the difference between Catholic and secular educational theory, we would say that the function of synthesizing, of viewing the parts in relation to the whole, of emphasizing the whole, is missing in the secular view. As a very important remedy for this defect on the higher level of education, metaphysics would prove its worth if all university administrators were to require 1) metaphysics as the unifying principle in the curriculum, and where possible, 2) the revelations of the Christian religion for rounding out a student. Religion thus complements the sciences and the other branches of knowledge to give the student a true totality of view, a complete, a whole outlook on life, a truly universal view.

Robert Maynard Hutchins almost agrees with Catholic theory. He suggests that American education use metaphysics as its unifying principle. While this is a step in the right direction, it does not go far enough.

The objective that Dr. Hutchins is striving for in university life is an admirable one, the development of our common human nature. He would, however, single out but one human power, the intellect, and educate that one power to the fullest. Strengthening of intellectual habits is a necessary and integral part of Catholic education, but a further aim, the formation of a Christian character, completes the Catholic aim in education.

Catholic education, then, most certainly agrees with the Hutchins aim. In so far as Dr. Hutchins holds that general education and the university should not have a character building function, we take exception, but we do so as Catholics keeping always in the back of our minds the view that

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all things we do are of their nature means toward salvation. And so education, of necessity for Catholics, must include moral training. And yet, taking the Hutchins aim in its proper locale, which is an environment no longer dominated and controlled exclusively by Church authority, his suggestion is exceptionally adequate and practical.

Dr. Hutchins is the judge applying the law, which is the ideal that education should strive for, to a particular case, which is the disjointed educational body known as our American system of education. Taking all the elements of this particular case into consideration, he construes the law so that it may apply to the best advantage. His decision is just and true.

Or we may call him the educational diagnostician, who, having discovered the source of the malady, prescribes the treatment for this individual disorder. He considers himself only a doctor and does not wish to assume the duties of a clergyman who would undoubtedly add to the doctor's treatment. If he did overstep himself, who would cry out more loudly than the Church authorities? He would avoid the religious issue in education. The fact is that under the present arrangement the Church has no direct say in state and other non-Catholic education. It can operate in an indirect way only.

But even if he were both doctor and clergyman, Dr. Hutchins would hesitate to impose his religious beliefs on the ill man, for from his experience in dealing with this patient — a religious polymorph — he could predict that advice or necessary prescription in religious matters would cause only violent agitation in the patient, and this would hinder the return to health for which he is working so hard.³

Since “. . . disunity, discord, and disorder have overtaken our educational system,” Dr. Hutchins has proposed that metaphysics be accepted as the unifying principle. The Catholic Church is not opposed to this view, but must necessarily go further in its educational aim of perfecting man.

Pre-Christian Methods of Striving for Perfection

Jacques Maritain maintains that the history of the pre-Christian world shows three methods according to which men tried to work out their individual perfection. The

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first method looking toward individual perfection was the entirely human endeavor to encompass the divine, which reaches up to God with natural powers only. As an example, India sought the supreme good through an upward effort using human powers and stretching these to their limit, expecting by this upward movement "to pass into superhuman conditions and enter into divine liberty."⁴ The second method to achieve human perfection was the entirely human seeking of only the finite universe, which, in purpose, stays here in this world. The Greeks pursued a wisdom not of salvation and eternal life but "a wisdom of here below, a wisdom of earth, wisdom turned towards created things."⁵ It was not a wisdom that aimed to unite man with God. It led simply to a rational knowledge of the universe. Our public school education today very much resembles ancient Greek education in its limited ideal. The third method of striving toward man's perfection was human in its mode and acceptance, but divine in its origin. It sought to lead to the divine with the help of the divine which descends to us. This third wisdom in the ancient world was the wisdom of the Old Testament, a wisdom unlike Hinduism in that it did not come through man's effort solely. It was a wisdom that could not be forced, it must give itself, it must descend to man from heaven.

The wisdom of salvation, the wisdom of holiness, is not achieved by man but given by God. It proceeds essentially not from an ascending movement on the part of the creature but from a descent of the creative spirit. And this is why it is essentially supraphilosophical, suprametaphysical, and really divine. ⁶

The Christian Synthesis

Over against the ancient world with its competition of wisdoms Maritain sets the Christian world with its synthesis, its hierarchy of wisdoms, the heir to a wholeness of view. There is both a downward and an upward movement in the Christian outlook — God gives himself to us

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in grace and we move upward to complete our perfection. Through the clear teachings of St. Thomas in the thirteenth century, we are aware of three sorts of wisdom—infused wisdom or the wisdom of grace, theological wisdom or divine revelation, and metaphysical wisdom or philosophy. The wisdom of grace is given by God directly and freely to the individual, theological wisdom is given to all men in divine revelation, and metaphysical wisdom is earned by man's reason as a reward in his search for ultimate truth. Metaphysical wisdom or philosophy is human wisdom, the highest human science. There are other human sciences all achieved by reason—the logical, the ethical, the mathematical, and the physical or experimental. And among all these sciences there is harmony, as there is harmony among the wisdoms.

No Conflict Among the Branches of Knowledge

Since all truth comes from God, there can be no conflict among the several branches of knowledge. Men may speak of conflicts, but men can be partial or exclusive in their outlook, making separation where only distinction is required. After all, one distinguishes in order to unite, as Maritain says in the French title of his book called *The Degrees of Knowledge*.—"Distinguer Pour Unir, ou Les Degres du Savoir"⁷

Man begins his intellectual march toward perfection, advancing first from the observation of the facts of experience up through their interpretations in the physical, mathematical, logical, ethical, and metaphysical sciences (human wisdom). The advance continues upward through the wisdom called theological which is higher in the hierarchy of knowledge because divine revelation is a descent to us, a wisdom revealed to us directly by God. This type of wisdom fills out the void acknowledged by reason which is incapable on its own of coming to much that is told us in divine revelation. The highest type, the wisdom of grace, an outright gift, attains God in an ex-

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perimental and superhuman way, a wisdom of love and union,

superior to concepts and images. Being sovereign, it can make use of everything. It may use the treasures of the imagination and of creative intuition, and the stammerings of poetry and then it sings with David. Or it may make use of the ideas and treasures of the intelligence and the stammerings of the philosophers; and then it teaches with St. Augustine.⁸

Convinced that ultimate union of man with God was to be the achievement of his striving toward perfection, the early Christian mind and the later medieval mind worked toward and discovered the harmony of all forms of knowledge, whether based on faith or on reason, as contributing toward that union. After the sixteenth century there developed a conflict between wisdom and the sciences. Harmony ceased, a separation set in, and science seemed to have won over wisdom. Catholic education of today has set about to heal the wound and to show that harmony exists not only among the wisdoms but also among the sciences and between science and wisdom.

The road is still before us, however, for today we find many varieties of purposes among educators, many of them aiming in different directions. Man, the guinea pig of modern education, is not always looked upon as a complete unit, but is separated into parts, looked at partially only, especially is he considered as the natural man only. The supernatural man is forgotten.

The Whole Man is Perfected

Catholic education agrees with other theories in the immediate purpose of forming character, or what comes to the same thing, in producing a stable personality integrated around worthwhile values of our social and rational life.⁹ It is expected that the quality of that personality or character will show a more complete formation if, instead of aiming to produce only or principally a good citizen without attending especially to those societies other than

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the state, of which the pupil is also a social member, an educational theory looks upon and purposes to develop the child as a cooperating social member of his school, of some industry by which he earns his living even if only doing home chores during his school years, and a social member of his family, and of his church, as well as of the state. In education the full view of human nature is never lost sight of.

Catholics still believe that every sphere of human life is related essentially to every other; and that in the conscious and deliberate activity of man, there is no action that can be evaluated as an absolute entity — isolated, that is, from the central fact of man's relation to the Universe. And because this reference of all human activity to the whole, under which for Catholics life is organized, is nearly always implicit and spontaneous, a habit of totality of view is set up, which sets the Catholics at odds with the whole modern outlook on life.

For modern thought, like modern life, is departmentalized. Our institutions reflect, in this respect too, our thoughts. The dominant ideal is separation — separation of Church and State, separation of science and philosophy, separation of religion and education, even of religion and morality. And what is true of the world that modern man has made is also true within the microcosm of modern man himself. He tries to live as though his social nature were one thing and his individual nature another; as though his life were set like concrete, in moulds; as though there were compartments for his thoughts, his emotions, his actions, like the divisions in his desk or safe. He seems to think he can separate his theory from his practice, his physics from his metaphysics, and make a cleavage between his life as father of a family, as a business man, or a public official and his life simply as a human being. ¹⁰

Integral View as Opposed to the Fractional

Thus Catholic theory endeavors to develop man's individual nature and his social nature fully, so that his personality development is fully rounded. This is the integral view of education, not the fractional. Everything achieved by less broadly purposed theories is also accomplished by Catholic education, which, however, emphasizes a broader

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purpose in the child's social development. In this of course the religious aspect of the child as a member of the Catholic Church is clearly marked out as an objective to be lived daily.

Dr. George Johnson of the Catholic University says in an article called "The Catholic Schools in America":

Human beings are intended to be happy. Their ultimate destiny is union with God for all eternity, to be filled with all His Fullness. The beginnings of that bliss they enjoy here on earth in the measure that they conform themselves in thought and action to the Will of God. Consequently they need to create for themselves during this life those conditions which will safeguard them in the practice of virtue and make it possible for them to live well.

Now this has always been the basic educational postulate of the Catholic Church. The school is one of the very important agencies that the Church makes use of in carrying out the mandate of her Divine Founder: "Go forth and teach all nations." In every age and in every place, regardless of circumstances, under whatever political, social, or economic conditions, the Church labors to assist human beings to attain the end for which they were created — namely, union with God. This end they accomplish by living in and through and by Christ . . . To attempt to make children and youth conformable to the image of the Saviour by means of some occasional religious instruction and then teach them the arts and the sciences in conformity with the spirit of the world is to court failure. It suggests to the impressionable mind of the child that religion does not really matter in the same way that other things matter. He does not see it entering into the warp and woof of life, and unless a man's religion does enter into the warp and woof of life it has little more than emotional or pietistic value.

In the Catholic school, religion is not regarded as just one branch in the curriculum. It is not confined to mere religious instruction. It is the foundation, the heart and soul of all other disciplines. Nor does it limit or circumscribe these disciplines in any way; on the contrary, it reveals their true values and affords the learner a rational basis for integrating them and through them achieving a dynamic and inclusive philosophy of life. ¹¹

Modern Tragedy — The Part Acts as if It Were the Whole

Above we said that Catholic education is "protestant"

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because it protests against partialism, exclusivism, separatism. In *The Nation*, June 1, 1940, in writing about "The Irresponsibles," by Archibald MacLeish, Waldo Frank stresses the modern tragedy of allowing the part to act as if it were the whole. He says:

The intellectuals who these past years have pontificated on letters, art, politics, past, present, future, from the shut booth of vulgar Marxism or the dustbins of empirical rationalism (our modern religion), have not disdained wholes . . . Their fatal fault has been that their "Whole" was only a part; wherefore their methods . . . went wrong. A part which acts as if it were the whole: there is the modern tragedy in a phrase. It is the program of fascism. But it also characterizes the religions of liberal, pragmatist, Marxist, transcendental Christian—all of whom had to play their preparatory role before the fascist could come on the scene to 'mop up.'¹²

Rather than the "partial" view, the "whole" view is embraced in the Catholic theory of education. The Catholic theory strives to be universal in its *comprehension* of man who is to be perfected by education — thus man's nature completely considered in his individual nature as a personality composed of all his physical and mental qualities and in his social nature as a member of the family, the state, the church, industry, and the school; and universal in its *extension* willing to include all men in its orbit — "Teach ye all nations."

It was Christ, the fountainhead of the Christian attitude, who said: "Going therefore, *teach* ye all nations." The Catholic Church is primarily a teaching organization — to teach by instruction, discipline, and example, the words of Christ, the God-man.

The United States is Guided by the Christian Tradition

Down through the centuries Christian culture has cut through all national boundaries and has influenced for better the lives of billions of human beings. The United States has inherited the Christian tradition.¹³ The major part of our more than one hundred and thirty one millions

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of people is Protestant; only twenty three millions—about one in six—are Catholic.

From the days of the Puritan landing at Plymouth Rock in 1620 religion has guided and controlled education in the United States. In colonial days the whole tone of education was religious—almost wholly Protestant. Most of the early colonists came to America to escape religious persecution or restriction of one sort or another.

Practically all the early settlers in America came from among the peoples and from those lands which had embraced some form of the Protestant faith, and many of them came to America to found new homes and establish their churches in the wilderness, because here they could enjoy a religious freedom impossible in their old home-lands. This was especially true of the French Huguenots, many of whom, after the revocation of the Edict of Nantes (1685), fled to America and settled along the coast of the Carolinas; the Calvinistic Dutch and Walloons, who settled in and about New Amsterdam; the Scotch and Scotch-Irish Presbyterians, who settled in New Jersey, and later extended along the Allegheny Mountain ridges into all the southern colonies; the English Quakers about Philadelphia, who came under the leadership of William Penn; and a few English Baptists and Methodists in eastern Pennsylvania; the Swedish Lutherans, Moravians, Mennonites, Dunkers, and Reformed-Church Germans, who settled in large numbers in the mountain valleys of Pennsylvania; and the Calvinistic dissenters from the English National Church, known as Puritans, who settled the New England colonies, and who, more than any others, gave direction to the future development of education in the American States. Very many of these early religious groups came to America in little congregations, bringing their ministers with them. Each set up, in the colony in which they settled, what were virtually little religious republics, that through them they might the better perpetuate the religious principles for which they had left the land of their birth. Education of the young for membership in the Church, and the perpetuation of a learned ministry for the congregation, from the first elicited the serious attention of these pioneer settlers.

Englishmen who were adherents of the English national faith (Anglicans) also settled in Virginia and the other southern colonies, and later in New York and New Jersey, while Maryland was founded as the only Catholic colony, in what is now the United States, by a group of persecuted

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English Catholics who obtained a charter from Charles II, in 1632. ¹⁴

The population of the colonies up to 1770 was only about 2,000,000. Of these there were about 20,000 Catholics. By 1850, out of a population of 23,191,876 there were 1,606,000 Catholics. In the latest census of 1940, out of 131,669,275 there are 22,945,247 Catholics.

Early Education in the United States Religion

In colonial days many Protestant parochial schools were subsidized with taxes from the public treasury. With the establishment of and the popular acceptance of public school systems in the middle of the last century, many of the Protestant schools ceased existing. From the middle of the last century immigration increased. Many Catholics came to the United States and became citizens. Wishing a Catholic education for their children, and dissatisfied with the tone of public school education which was Protestant, they built Catholic schools along with their churches. Protestants favored the State public schools as being in keeping with or at least not opposed to Protestant teaching. With the influence of Prussian centralized education, admired by Horace Mann and others in the middle of the 19th century, all religious denominations, unwilling to impose any one religion on the children, agreed to banish the teaching of religion from the public schools.

The tendency to substitute civic and social motives and spirit in schools for the religious element did not reach a climax till the "Great Awakening", under the leadership of Horace Mann as Secretary of the Massachusetts State Board of Education. To this office he was appointed in 1837, and from then on waged his battle to secularize the schools of Massachusetts. He was successful, and his success became a stimulus to similar efforts in other States. By the middle of the century the process of secularization was complete in most of the States, and public schools were prohibited from teaching religious doctrines . . . The decline of religious education has led to an erroneous popular view of the state as an educational agent. The rather common tendency is to recognize but one educator, and that,

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the state. Catholic doctrine, on the other hand, clearly recognizes the parent, the Church, and the state as concerned in the process of education. Catholics and non-Catholics were formerly in agreement in reserving to the parents the primary right and duty in educating their children. This was a principle of Christian teaching and was also in accord with the democratic institutions of the country. The secularizing of education, however, brought with it a change of emphasis in respect to the rights and duties of the three fundamental agents of education. The state now replaced the family; the Church became a mere adjunct in the educational process . . . ¹⁵

Non-Religious Secularization Hastens Formation of Catholic School Systems

President Nicholas Murray Butler sums up a position to which the Catholic theory in education heartily holds:

So far as the tax-supported schools are concerned, an odd situation has been permitted to arise. The separation of church and state is fundamental in our American political order, but so far as religious instruction is concerned, this principle has been so far departed from as to put the whole force and influence of the tax-supported school on the side of the one element in the population, namely, that which is pagan and believes in no religion whatsoever . . . The school child is entitled to receive, and should receive, that particular form of religious instruction and training which his parents and natural guardians hold dear. This cannot be done if the program of the tax-supported school is arranged on the theory that religion is to be excluded from the educational process or treated incidentally as an element in home life. The government's indifference to religion must not be allowed to become opposition to religion . . . The root of the difficulty is to be found in the relations between the family, the school, and the church, and their influence during the years of infancy and early youth. ¹⁶

Of late years, (says Monsignor Hagan) there have been many public educators who, like Doctor Butler, deplore the exclusion of religion from public education, and still others who do not hesitate to assign the real cause of this national tragedy to the short-sightedness and domineering spirit of Horace Mann and his co-workers. ¹⁷

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In the United States the early settlers transplanted the customs of their European mother country, including the ideals and principles of education they had known there. Before the Revolution and the adoption of the Constitution with its guarantee of religious freedom, Catholics accomplished little in organized education.

The century and a half preceding the victory of Yorktown was an epoch of life-in-the-catacombs for the Catholics in the future Republic.¹⁸

By the outbreak of the Revolution there had probably been established some seventy Catholic schools. Many of these were in the French and Spanish possessions and had little permanent influence except that of the Ursulines in New Orleans.¹⁹

The custom of having a parish school along with the church dates from 529 (Council of Vaison, France). The First Provincial Council of the Catholic Church in the United States in 1829 stated that:

We judge it absolutely necessary that schools should be established, in which the young may be taught the principles of faith and morality, while being instructed in letters.²⁰

Catholic parochial schools increased through the decades and the 7,944 elementary schools with 2,035,182 pupils and the 2,105 high schools with 361,123 pupils, have been organized today into many regional (diocesan) school systems similar to the county or city public school systems.

Statistics on the Catholic School Systems Today

Today in the United States there are 22,945,247 Catholics; 150 Catholic diocesan school systems;²¹ 97,464 teachers, (83,515 of the religious teaching orders, 13,949 lay teachers); 10,459 schools (98 major seminaries, 83 minor seminaries, 193 universities and colleges, 6 diocesan Teacher's colleges, 30 normal schools, 2,105, secondary schools, and 7,944 elementary schools); 2,584,461 students (2,035,182 elementary, 361,123 secondary, 188,155 college level).

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²² These Catholic school systems of the various Catholic dioceses are a powerfull force in our country contributing toward creating millions of our citizens.

Catholic Theory Works Out Into Practice

Just as at the time of the Reformation, Catholic Christianity influenced Protestant Christianity in educational ideals and methods, so during the history of the United States it is observed that the Catholic School systems have been influenced by the public school administrative setup, by the uniformity of the ladder system in the articulation of the schools, in accrediting, by the raising of standards for teacher training, and so on. There has been a mutual interchange and concomitant growth in both systems. Catholic theory works out into a structure and organization, and it functions in precisely the same manner as the public school system, which is partly explained by the compulsory state laws.

The educational theory behind public school education in the United States does not satisfy Catholic educational ideals. In fact it is partly on the ground that secular education lacks a unifying principle adequate to perfect man that the Catholic educational systems exist.

Moreover, the Catholic school is able to achieve unity in its instruction. It sees the child as a whole child, possessing religious, intellectual, physical, and social powers given to him by Almighty God, as means to an end, union with Him. These powers are to be developed harmoniously—not with the lopsided development of the natural man, the economic man, or the social man, but unto the full perfection of the Christian man, “the supernatural man who thinks, judges, and acts constantly and consistently in accordance with right reason, illumined by the supernatural light of the example and teaching of Christ; in other words . . . the true and finished man of character.” ²³

NOTES ON THE CHAPTER

1. See Ernest Hull, *Formation of Character*, (St. Louis: B. Herder Book Company, 1926).

2. Edward Leen, *What Is Education?* (New York: Sheed and Ward, 1944), p. 1.

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3. Arthur D. Fearon, "The Educational Plans of President Hutchins," *The Catholic World*, CXLVIII (October, 1938), 16-22.
4. Jacques Maritain, *Science and Wisdom*, tr. Bernard Wall (London: The Centenary Press, 1940), p. 9.
5. *Ibid.* p. 10.
6. *Ibid.* pp. 16-17.
7. Jacques Maritain, *The Degrees of Knowledge*, tr. Bernard Wall, 2d revised and augmented French edition (New York: Charles Scribner's Sons, 1938).
8. Jacques Maritain, *Science and Wisdom*, tr. Bernard Wall (London: The Centenary Press, 1940), p. 23.
9. W. D. Commins, *Principles of Educational Psychology* (New York: The Ronald Press, 1937), chap. XVIII.
10. George Bull, *The Function of the Catholic College* (New York: America Press), a pamphlet.
11. George Johnson, "The Catholic Schools in America," *Atlantic Monthly*, CLXV (April, 1940), 500-505.
12. Waldo Frank, "On 'The Irresponsibles,'" *The Nation*, CL (June 1, 1940), 679-680.
13. Cf. André Siegfried, *American Comes of Age*, tr. H. H. Hemming and Doris Hemming (New York: Harcourt, Brace and Company, 1927).
14. Ellwood P. Cubberley, *The History of Education* (New York: Houghton Mifflin Company, 1920), pp. 356-357.
15. Burns and Kohlbrenner, *A History of Catholic Education in the United States* (New York: Benziger Brothers, 1937), pp. 152-153.
16. Nicholas Murray Butler, Annual Report of the President of Columbia University to the Board of Trustees, January 1935.
17. John R. Hagan, "A Plea for Conciliation," *National Catholic Educational Association*, May 1939.
18. Burns and Kohlbrenner, *op. cit.*, quoted from Peter Guilday, *Life and Times of John Carroll* (New York: Encyclopedia Press, 1922), p. 790.
19. *Ibid.* p. 40.
20. *Ibid.* p. 62.
21. *The Official Catholic Directory*, 1943, (New York: P. J. Kenedy and Sons), p. 1246.
22. *The National Catholic Almanac*, 1944, (Paterson, N. J.: St. Anthony's Guild), p. 336.
23. James T. O'Dowd, "Catholic Church and Education," *The Church in Action* (Washington: National Council of Catholic Men, 1943).

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CHAPTER VII
THE HUMANITIES
A Liberalizing Curriculum
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The Immediate Background

A vital and promising movement in American education is the much heralded "Revival of the Humanities." It began to crystalize as a "new" educational venture over two decades ago. In the intervening period, it has spread with mounting force and rapidity across our land. By 1940, there were already thirty humanities curricula introduced and established in colleges and universities. By including other comprehensive courses similar in nature and purpose to the humanities the number had actually grown to forty-eight,¹ and it is a safe assumption, according to more recent information, that the number has increased to over sixty, which would seem a stable index of progress.

But what were the underlying causes which impelled men of learning to seek a new or rather reconditioned path to truth by way of the neglected liberal arts?—To begin with, World War I had made exacting demands on higher education, clamoring for young men with scientific and technical training to the general disparagement of liberal studies. To aggravate the situation further, so

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called "war aims" courses were introduced soon after the armistice, and when the "post-war depression" period set in with its devil-may-care indifferentism, educators cried out in alarm.²

A second cause, which had had a wide and varied influence up to the present, goes back to the famous "literature versus science" controversy of the nineteenth century between Matthew Arnold, spokesman for culture and the humanistic tradition as reflected in classical literature, and Thomas Henry Huxley, "Darwin's bulldog," who stoutly championed science. Matthew Arnold summarized the conflict twenty-two years after its inception, in his brilliant and searching lecture "Literature and Science," which when delivered in America revealed a tone and attitude of commendable compromise, or better—a higher perspective. He asserts, by way of illustration, that "all learning is scientific which is systematically laid out and followed up to its original sources, and that a genuine humanism is scientific," and then concludes with a lucid and liberating declaration: "When I speak of knowing Greek and Roman antiquity, therefore, as a help to knowing ourselves and the world, I mean more than a knowledge of so much vocabulary, so much grammar, so many portions of authors in the Greek and Latin languages; I mean knowing the Greeks and the Romans, and their life and genius, and what they were and did in the world; what we get from them, and what is its value." Which is one of the great humanistic credos, now coming dramatically to the fore again, though forgotten by our supposedly learned men these many years.³

It is deplorable that only the initial hostility was remembered, resumed, twisted and torn apart into a greater cleavage. Thus a third complex factor resides partly in a narrowing conception of science, which resulted from old antagonisms, that became predominantly deterministic in nature and utilitarian in application. Thus we can visualize a materialistic phase of scientific method and outlook as eventuating in a more competitive industry, and an accelerated technology bent upon wholly material and selfish ends. Ends that we can bracket under sordid head-

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ings, like monetary profits, struggle for markets and colonial riches, mass production of cheap goods, and the exploitation of the underdog.

But more sinister yet, a general philosophy of life was engendered according to which the new-born masses were made to believe that a quantitative appraisal of existence was all that mattered. Hence, we realize today that a prevailing cynicism provided but another reason for the desire to re-establish the humanities in the hearts and minds of an ailing humanity. Meanwhile, the liberal studies withdrew from the clamorous market place and became wholly "academic" in a derogatory sense. Their exponents retired to their brown studies, to their ivory towers of seclusion, and refused to sully their pedagogic gowns with the dust and toil of the raucous highway, leading into the present, and on into a dubious future.⁴

In contradistinction we may also discern certain enduring cultural trends in our past, which have persisted to the present. Indeed, we had been made overly conscious of them, at home, in school and church, as the positive and all embracing reality of our culture. The shining glory of these hallowed traditions, and the pretty lip service we rendered them, caused us to be blinded and deafened to that other dark and threatening reality we have just thrown into momentary relief. Nevertheless, that second and brighter seeming aspect of our world is real enough, because it has lived in our minds and sporadically been translated into current idiom and memorable action. It is, of course, constituted *par excellence*, of Greco-Roman classical culture and wisdom, and the ethical teachings of Christianity. Of almost equal merit are the creative and religious achievements of the medieval communes, together with the unfoldment of Renaissance humanism and empiricism in learning, art, and science. To our more immediate advantage followed later two great movements; the enlightenment of the eighteenth century reaching out its emancipating creeds even to the new world, and lastly the still rousing nineteenth century liberalism. These are apparently the major factors of Western tradition which continue to spur us on to renewed endeavors. Through

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them, principally, we live and strive and have our authentic being. Through them, and through the entire gamut of Western historic periods, one may detect a continually recurring theme, which like a fabulous "crimson cord" binds them together into a close-knit and usable tradition. And that tradition is summed up in the concept of man as a being of dignity and worth, endowed by God (or nature or a life force, etc.) with capacity for growth and personal fulfillment, and dedicated to the service of a world community of equals.

The Revival of the Humanities

In retrospect, it is now fairly simple to construe the revival of the humanities as a necessary outcome of the disruptive past era, perilously balanced between two world wars. As a matter of verifiable knowledge, the "revival" began when responsible educators, alarmed by dangerous trends, protested and called attention to the liberal achievements of western man. Not satisfied with a purely verbal denunciation, they initiated far reaching plans for the improvement of general education. Thus, as early as in 1921, occurred the two "classical investigations," in England and in the United States, which directed everyone concerned to focus on a more generous program for undergraduates. The consensus of opinion expressed was that "the study of the classics was a vital aspect of education," and that it was emphasized "as a preparation for other studies, or rather as a dynamic element in general national education, which must, for obvious reasons, be concerned with modern subjects."⁵

In the same year, Dr. R. F. Scholtz, president elect of Reed College in Portland, Oregon, inaugurated a "History of Civilization" course. It was essentially a humanities program, inasmuch as it stressed literature, history, philosophy, social forces and art.⁶ Two years later, Professor Herbert E. Cory headed a newly created "Department of Liberal Arts" at the University of Washington, which employed the aesthetic and analytic approach to art, literature, music, architecture, and liberal thought. An in-

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teresting feature was the participation of experts in the various fields as lecturers. An air of intellectual excitement surrounded the courses, which drew great crowds of eager students and equally eager professors to the gatherings.⁷

Another humanistic experiment was launched in 1927 at the University of Wisconsin, under the direction of Dr. Alexander Meiklejohn. The "Experimental College," as it was called, projected the "Athens-America" curriculum, which meant a concentrated study of Greek culture in the time of Pericles, with an analogous scrutiny of American culture in the age of Adams and his contemporaries. One year was devoted to the Greeks and a second year to the American counterpart. All instructors met with each class in order to help achieve a unified view of the Greek and American ways of life. The course was made flexible, so that it would develop along with the students' growth and respond to their needs. Such an unusual experiment had repercussions in educational circles throughout the country. And, although it lasted only till 1932, it nevertheless exerted perhaps as much influence as any other twentieth century educational reform.⁸

For it was in the following year (1928) that the first so called "Humanities Curricula" began to appear at Stephens College, Columbia, Missouri, and at Scripps College, Claremont, California. Then, in 1930, Antioch College and Johns Hopkins University were added to the expanding roster. The following year, the University of Chicago announced its now well-known "Chicago plan" in which the humanities were placed as one of the four main curricular orientation courses. And only a year later (1932), the University of Michigan followed the example. At the same time, the University of Minnesota joined the ranks with its General College curriculum in the arts and in creative art expression. Princeton, next, organized a four year Humanities Division program in 1936, which has become a model of liberal inclusiveness under Professor T. M. Green's acknowledged leadership. In 1937, Columbia University established a two year humanities course, with Professor Jacques Barzun as one of its chief guides. Mention should be made at this point that an "honors

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course" was offered at Columbia in 1919. Dr. John Erskine, its sponsor, is therefore one of the first to introduce a course in humanistic synthesis.⁹

It must be remembered, too, that Stanford University had offered a course similar to that of Columbia since 1935. But in 1942, Stanford set up its School of Humanities as a four year program, under the able leadership of Dean H.W. Dodds and the well known critic of cultural trends, Lewis Mumford, newly created Professor of Humanities. Soon thereafter, Mills College for Women inaugurated in 1943 a "reconstruction of the humanities," when Dr. Lynn T. White, president elect of that institution, took office. As at Stanford, where the second year is devoted to the humanities in American education, Mills College places a strong emphasis on American civilization. Further, an alert eye is trained on the future of cultural relations with the Orient. At our own institution, the San Francisco State College, a Humanities Division has existed since 1940, with importance given to the humanistic tradition, to American culture, and to the study of values, as well as to a "creative arts workshop" program.

Such are just a very few of the recent milestones in the rapid onward progress of the "humanities revival" in the United States. It is highly representative of the entire country; it is alive with an awakened scholarly zeal for truth; it is immensely promising in its balanced and vigorous growth.

The Meaning of the Humanities

If we begin with the present, we shall find among certain representative spokesmen for the humanities a basic and unifying agreement on essentials. Thus Professor Perry of Harvard University mentions history, art, literature, and philosophy as "the humanities *par excellence*." But in his completed review, he embraces the sciences, natural and social, and advances ultimately to a view so inclusive that it may well intimidate the pedagogic neophyte.

Any agency or relationship or situation or activity (he announces) which has a humanizing, that is, liberalizing

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effect: which broadens learning, stimulates imagination, kindles sympathy, inspires a sense of human dignity, and imprints that bearing and form of intercourse proper to man may be termed "a humanity." Travel, friendship, marriage, experience in affairs are, or may be, in this sense humanities. ¹⁰.

As can be seen, Professor Perry includes five principal conditions which insure the humanistic goal of human freedom based upon enlightened choice. Furthermore, in defining the underlying educational philosophy of "humanism" as a "cult of freedom" for man within a political and social frame of reference, the writer attacks the totalitarian state as most reprehensible in suppressing the individual's right to think for himself and exercise enlightened choice.¹¹

Another feature of importance in Professor Perry's chapter is the sound insistence on "contemporary values" in the humanities. Starting with the central meaning of humanistic thought, the worth and dignity of man as dependent on freedom, he maintains that the humanities must not merely "revive" the past but must above all create their ideals in the image of the contemporary world. True humanism welcomes and acclaims every extension of knowledge, insight, and creation. It is open minded and charitable, but sceptical of arbitrary or exclusive thought. Man is held to be preeminent of all living things. But the hall mark of true humanism is an innate and universal courtesy that extends its cultural values and spirit to all humanity and by that affirmation it espouses the heart of Christianity and the way of international democracy. ¹²

From Professor Perry's considered definition, we may turn to Miss Beesley's classic survey of the humanities. "Literature and the fine arts constitute the core of all humanities courses and, together with history, music, and philosophy provide the materials from which such courses are constructed," is her brief resume. And as to course plan, we read that "the plan characteristic of the majority of humanities courses involves a survey of the history of civilization . . . the study of fundamental aesthetic principles. . . 'laboratory periods' (at Antioch, Scripps, Min-

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nesota, San Francisco State College, etc.) devoted to active creative experience in the arts." And even more significantly the aims are described in terms similar to those used by Professor Perry:

To stimulate interest in the various forms of man's artistic expression, to provide a perspective on the contemporary scene in terms of the great cultural heritage of the past, to increase the individual's sensitiveness to spiritual, intellectual, aesthetic, and imaginative values, to develop a critical appreciation of literature and the fine arts which will contribute to a full and well rounded life. ¹³

As an eminent exemplar among spokesmen for the humanities, one may single out the philosopher Theodore M. Green, of Princeton University, who draws as near to the very heart of the subject as anyone. For instance, he provides us with something which is usually lacking in most studies—an interpretation and cogent analysis of man and his nature. For human nature is appraised on five levels of ascending complexity and significance. Thus man is a sentient creature, a conscious individual, a social being, a creative and critical personality, and philosophical and historical mind. He asserts further that

education is liberal in proportion as it promotes genuine culture, that *culture is a function of the success with which available empirical data, in all their variety and multiplicity, are both historically oriented and philosophically interpreted, and that culture, so defined, is the ultimate goal of all humanistic endeavor.* ¹⁴

He warns us against what he calls "social mechanization, whether industrial, political, or militaristic," which threatens "increasingly that freedom of thought and responsible action which is the very condition of human dignity." On the positive side he urges that we consider and strive for the nature and condition of man's true well-being, which is constituted by physical health, economic security, but above all by the moral, aesthetic, and religious values, which "modern dictators misinterpret and twist to their own end, but which the humanist regards as the very cor-

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nerstone of liberty and culture.”¹⁵ Agreeing with Professor Perry on the core subjects of the humanities, Professor Green adds the fields of criticism, morals, and religion. Moreover, he stipulates that language is the basic discipline for the communication of every kind of intelligence and for the expression of normative insights (i.e., of aesthetics, ethics, religion). As the instrument or tool of evolutionary trends he focuses upon human reason or rather consciousness as “not a mere aggregate of unrelated mental states . . . consciousness is at each instant a function of a more enduring self . . . persisting in time as a relatively enduring pattern of memories, habits, impulses.”¹⁶

For any further knowledge and illumination, we must go to the humanities themselves, where man—his nature and function and destiny—are written down and delineated in large type. In the works of poets, novelists, playwrights, and philosophical biographers and essayists, we shall find profound and subtle portrayals of all manners of men and their variable conditions. In art expressions, the same concrete embodiment will haunt us with the reflected images of a humanity that at its lower depth seems animalian, bestial, subhuman, at its upper reach creative, archangelic, or as if “cast in the image of God.”

It now becomes imperative to ascertain what our foremost humanistic predecessors bequeathed to the rest of western mankind. Because we shall by comparison gain an even sharper knowledge of the full historic meaning of the humanities.

Retrospect: The Original Humanities

Historically, the term “humanities” was used in Renaissance Italy as early as 1450 to indicate the study of the classical literatures of Greece and Rome. It was used interchangeably with the older medieval designation “*artes liberales*” or liberal arts with a renewed insistence on the emancipating effect which classical learning had upon the mind and spirit of man.¹⁷ Consequently, we must overleap intervening time and ferret out what the originators of the humanities, the Greeks of the Periclean era, set down in

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word and creative deed. For those fifth century Greeks have, in the critical verdict of posterity, been called "the schoolmasters of the western world."

Among those relatively early Greeks, the Sophists or wise men were the first humanists. Protagoras, their foremost exponent, declared that "man is the measure of all things." By which he meant that man because of his reason and the Promethean gift of speech was enabled to know himself and the cosmos. But, argued Protagoras and his fellow wise men, since man was body as well as intellect, his education must help to mold and keep well his body as it must also shape and discipline his mind. Here the contemporary Hippocratic school in medicine was to furnish them with facts relevant to the physical body of men, particularly the doctrine of the four humors—the blood, phlegm, yellow bile, and black bile—which, when in balanced proportion, kept the body in good health.¹⁸ That is at least one reason why gymnastics accompanies the intellectual subjects of grammar (i.e. language study), rhetoric (the art of oral expression and literary interpretation), and dialectic (logical principles of thinking). In short, *the conscious and deliberate study of how language reflects the way in which we think, and thereby how our mind functions*, has been held to constitute the greatest intellectual discovery made by civilized mankind. But, in addition, there were already extant four disciplines, derived in part from the Pythagorean school of thought and in part from the Ionian philosophers of Asia Minor (ca. 600-500 B.C.), who investigated the nature and origin and development of the cosmos. These were, of course, arithmetic (study of numbers), geometry (spatial relations and dimensions), music (proportion, rhythm, and harmony of parts), and astronomy (the laws governing the stars in their courses). By their aid, said the Sophists, the student could explore and learn to know the universe. If we now add to that curriculum, some training in technical skill of a professional nature, insisted upon by the Sophists, who were men of the world, we shall see emerging the outline of a fairly rounded and thoroughgoing educational scheme.¹⁹

Socrates, the great teacher of antiquity and modernity,

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contributed an original version of the good life and of the intelligence requisite for it. For instance, the sophistic injunction "know thyself" (*gnothe seauton*) is re-enforced by his dictum that "virtue is knowledge." For, maintains Socrates, "knowledge is knowledge of the good," and "nobody errs willingly," which implies mastery over self as exercised and achieved by means of such knowledge. He, moreover, stressed the ideal aim of education to be not merely (a) the development of certain abilities nor (b) the mere learning of certain subjects, but (c) the enabling of an individual to attain the true fulfillment of his nature as an individual being.²⁰

Plato, his famous disciple, should be credited with a significant emendation of the Protagorean maxim, "man is the measure of all things," which reads in its profoundly altered form, "the measure of all things is God."²¹ A statement evincing growth in the entire humanistic conception of man as no longer wholly self sufficient; but dependent in origin and in relationship on conditions and men, and in purposefulness of destiny upon cosmical forces clearly beyond his control. Then, again, Plato more extensively formulated the scheme of higher education. To the sophistic curriculum, he added a deeper conception of musical harmony and of mathematics, and introduced philosophy as the highest reach of liberal or humanistic studies. Finally, Plato conceived of man as a threefold entity composed of physical (body), moral (character), and rational (mind) aspects, to which corresponded the appropriate virtues of fortitude, temperance, and prudence (foresight), having the role of keeping each part of man in the most perfect state. When all three virtues balanced each other in producing respectively a healthy body, a noble character, and a discerning mind, a fourth virtue sprang into being and that was justice (so called in the *Republic*), or wisdom. From which analysis we are once again convinced that the classical Greeks based their educational concepts on a lucid grasp of human nature.

One may at this juncture, and rightly so, pose a question that demands careful deliberation. What is the cardinal link in the humanistic tradition and how was it fashioned

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between us of today and the "best that was thought and said" by the Greeks and the Romans?

In spirit and outlook, it cannot but be conceded that the "humanists" of the Renaissance, and of Renaissance Italy in particular, were the true discoverers of Greco-Roman humanism. From the time Francesco Petrarch in 1333 found his first manuscript of two Ciceronian speeches in the town of Liege, the humanistic revival of ancient learning was to spread rapidly through Italy itself, then France, Germany, the Netherlands, Spain, and attain its final culmination in Elizabethan England in the time of Shakespeare. In the perusal of Greek and Roman writings, the humanists observed that two great contributions had been made. One was the discovery of the nature of man; the other, the exploration of the natural world.

In the strictest sense, the Italian humanists were often merely literary pedants and imitators of classical models. Hence, a good many were intellectual slaves to the past and veritable tyrants of the immediate present. But in a larger and truer sense they were also creative artists, great inventors, scientists of experimental renown, educators who at times anticipated Pestalozzi and John Dewey, and Utopian critics of society—like Campanella, Thomas More, Bacon.

And as they grew in knowledge and insight, they enlarged their concept of man and extended their search into the surrounding universe. Men like Alberti, Da Vinci, Michelangelo, Erasmus, Copernicus, Vesalius, Galileo, Montaigne, Shakespeare, and Bruno recall heroic exploits of the human mind. For they and their kind anatomized the human body, invented perspective, observed and graphically recorded phenomena of nature, canalized rivers, examined the laws of physical motion, depicted the human world of the moment in its vivid hues and pulsating movement, and plunged their philosophic gaze into the unbounded realm of interstellar space.

In the field of education, likewise, teachers like Manuel Chrysoloras, Paolo Vergerio, Guarino da Verona, and Piccolomini, and a genius like Vittorino da Feltre, liberalized the curriculum under the impetus of the new learning.

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Vittorino, "the first modern schoolmaster," added physical exercise and athletic games for the vigor of the body. Manual art was employed for the skill of the hands. He and Guarino instilled moral ideals by means of illustration from classical texts and by their own exemplary conduct. They, moreover, endeavored to refine the senses of their pupils by fostering aesthetic perceptions of natural beauty and of the human form, as revealed in art expression. All this they did, in addition to training the mind in the rigors of logical thought and philosophical contemplation.²²

Unfortunately, a rift appeared in the sixteenth century between those who followed the Aristotelian tradition of empiric knowledge, scientific method, and experiment, like Pomponazzi in Padua and Venice especially; and those who pursued and developed Noe-Platonic "umanismo" at Florence, which stressed the literary, aesthetic, and academic approach to humanistic culture.²⁴ The cleavage widened, despite occasional periods of attempted reconciliation such as the "enlightenment" of the eighteenth century, the romantic era at the beginning and the liberal movement toward the end of the nineteenth century.

Prospect: The Humanities and the Future

Now that the ancient learning is once more recalled to a useful and living function, and the new learning of today is welcomed and critically evaluated, one may observe certain trends in the manifold aims which animate our broadened conception of the humanities. Thus the sharpened objectives, which have derived in great measure from the reconsideration and a more accurate reconstruction of past wisdom, seem to center around at least five major goals, attainable by the educative process. The following would in consequence be our humanistic aims:

1.) *To grow in understanding of the nature of man, the conditions of his life and relationships, and the phenomena of organismic and inorganic nature.*

2.) *To quest and ascertain the values whereby man in particular, and animate creation in general live and thrive;*

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values without which the very forms of life stagnate, wither, decay, and perish.

3.) *To learn to translate acquired knowledge* and accumulated wisdom into creative activities, so that the natural environment of man may be improved and thus rendered safe, livable and propitious to his well being.

4.) *To conduct man to a state of mental liberation*, whence he may achieve spiritual insights into both a deeper conception of life and into a higher development of man himself.

5.) *To foster a spirit of universal brotherhood* on the basis of the humanist credo of the intrinsic worth and dignity of all men, irrespective of race, creed, caste, sex, age, and color; in order to achieve the ideal of communal service and world wide interchange of the cultural achievements of every region.²⁴

Tradition versus experiment. Naturally, such expanded meanings of the humanities must of necessity include a liberalizing trend in methods employed. We shall, consequently, find that most colleges have embarked upon experimental procedures which have enlarged and revived both teaching and learning processes. Collaboration of departments like art, music, English (literature), languages, philosophy, history, education, social science, biology, medicine, and others have in varying combinations infused fresh energy, knowledge, skill, and meaning into the sedate and—at times—"stuffy" academic halls of learning. Despite difficulties of adjustment, sequence, and limitation of subject-matter, scores of similar educational ventures have borne good fruit. Besides, there are more informal discussions, student reports, demonstrations, creative activities, field trips, and new teaching aids employed (e.g., visual, auditory, glyptic, graphic, kinetic), which have further tended to loosen up the conventional classroom atmosphere.

Emerging concepts. Also exceedingly important are the new concepts which have flowed generously into the stream of humanistic learning. Of such emerging conceptions, four master-clues are detected in the following:

1.) *The theory of evolutionary change*, as opposed to

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mere mechanical impact, introducing the notion of organismic *growth* and development in terms of organized and functional "wholes" rather than discrete, fixed, and atomistic parts. Gestalt and configurationism in psychology, "holism" in philosophy, interfusion of knowledge in education (Dewey's terminology)²⁵ developmentalism in biology, functionalism in architecture, "operationalism" in physics are some examples of this revolutionary mode of thinking.

2.) *The statistical method* of analysis yielding *probability* or approximate truth as contrasted with the absolute truth of Aristotelian logic, proceeds by observing related phenomena and selected groups of which, when measured and computed, produce approximations or "averages." Thus statistical science and method can be used in any situation of empirically ascertainable facts which have a bearing upon each other and therefore indicate *trends*. Public opinion, population growth, commercial aviation, literacy, molecular physics, and any measurable subject, we are told, can be treated statistically.²⁶

3.) *Will* as a substitution of "reason" as an index to the source of human acts, which is an outgrowth of biological trends, arising out of voluntaristic philosophies (e.g., Schopenhauer, Nietzsche, Bergson, James). Here a wide variety of application is evidenced in Freudian psychoanalysis involving the sex-drive or "libido" as offset in the mechanism of repression; in Pareto's sociology of sentiments and "residues" functioning as determining factors in society; in Spengler's philosophy of cultural epochs, the morphology of history, and national destiny; and also in totalitarian power philosophies of "*lebenstraum*," "Nordic myth," "drive to the East," and geo-political concepts generally.

4.) *The semantic approach to meaning* through language and symbolism a tool of thought in contradistinction to the arbitrary logic of predication in a proposition. In semantics, the historical study of words and symbols is employed, which is supplemented by the contextual meaning or the setting of a word or symbol, and the referential (or "pointing out") and operational meanings.²⁷

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Consequently, the humanities student must be acquainted with the major new ways of thinking. He should be cognizant of their potential value in opening up new frontiers*of knowledge, as he must also guard against possible limitations and abuses. This he cannot avoid doing, remembering that man, the human agent, is always the user and recorder and evaluator of concepts and methods and so called "facts"; and that man himself is fallible and must perforce allow for personal equations and "margins" for error.

A welter of subsidiary ideas naturally evolves from fields which are now rapidly advancing. Terms like praegnanz, sub-vocal lingualism, kinaesthetic sense, introjection, sublimation, extra-sensory perception, all from psychology, must be examined, their implications comprehended, critically evaluated from the humanistic point of view, and applied to their appropriate spheres of thought and action. So must recent coinages from the field of criticism and aesthetics; such as, synaesthesia, eidetic image, cryptomnesia, empathy, esemplastic imagination, stream-of-consciousness technique, and others. From anthropology stem numerous concepts: mythopoeic invention, rites of passage, pathic communion (Bronislawsky), social or cultural lag, charismatic leadership (Sorokin), acculturation, ethno-centrism, sacra, diffusionism, and the like. Moreover, a similar undertaking of analysis should be accorded subjects as diverse as human ecology, semantics, symbolism, technology, cartography, axiology, and others which open up new horizons of mental outlook.

New world horizons. But words are not enough. Knowledge alone will not suffice. "Knowledge is power," said Francis Bacon. But thereby hangs a long tale of hazard and peril to the human race. For it has been proved that unless the knower is responsible for the use to which he puts his knowledge, disaster and ruin overtake us. Particularly now at the termination of a world war into which has gone so much of ingenuity and knowledge of irresponsible and destructive intent, the tocsin of alarm must again be sounded.

The humanist is consequently obliged to be on his guard

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as he ventures forth into the expanding horizons of intellectual discovery. He welcomes, for example, the emerging fields of semantics and symbolism, now construed as tool subjects for the mind in its effort to interpret the meaning of words and the intent and scope of signs. Semantic analysis of special nomenclatures and symbolic systems leads to clarification, facilitates accurate exchange of ideas and attitudes, and expertly unravels the oblique and specious verbiage and symbolism of slanted propaganda.²⁸

He is also grateful for the recent development of axiology, the study of values as they are accentuated in the normative disciplines of ethics, aesthetics, logic, religion, and theoretical science. The good, the beautiful, the true, the spiritually serene, the useful, the life giving are values by virtue of which we live and prosper. The criteria which establish and critically assess those values are perceived to evolve from a profound diagnosis of the nature of men and the recurrent satisfactions of their deep-lying needs and longings.³⁰

In addition, there are subjects which in their pragmatic aspect promise the modern citizen a place in the sun: eugenics, human ecology, technology, chemurgy, electronics, functionalism in architecture and housing, plastics, and more of the kind. Besides, health and sanity are administered to by "war" medicine, psychiatry, dietetics, therapeutics, reflexology, pathology, and general procedures of rehabilitation. In such and kindred fields of applied scientific knowledge, the student should be wary of undue specialization, utilitarianism, and distortion caused by insufficient intelligence and by overmastering greed. He will accept, however, from any knowledgeable source whatever the obvious good that will accrue from any approach that looks to the general welfare of society.

But above every other consideration, the true humanities champion will be constrained to purge his own domain of bigotry and cant. Indeed he of all men must realize that because of human failings and limitations he must prepare against the "snares and delusions" which beset and dog the tracks of any enterprise sponsored by himself and his kind. "Critique of pure humanities" would resolutely confront

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certain shortcomings, expose them, and apply a corrective. As a lover of the humanities he is obliged to put them down in writing. So, here are listed, perhaps, the chief offending items:

1.) Our humanities in western tradition have been too "Western," too "Nordic," too "Anglo-Saxon"; they must follow the expanding horizons that move around the globe and come back full circle on their return to us.

2.) The basic point of departure, the substance and essence of inquiry—*man*, has been too vaguely defined, too abstractly theorized about (i.e. the "economic" man, the "political" man, etc.); too sketchily endowed with a full blooded biological reality.

3.) The humanities espouse a philosophy dubbed "humanism," which by turns undergoes a protean transformation into—scientific, instrumentalistic, realistic, pragmatic, mystical, romantic, neo-Thomistic, naturalistic, idealistic, personalistic, and Christian varieties of humanism. That is too much eclecticism for one creed. There is a core of knowable and useable reality in all, as we have tried to indicate in the present study. Humanism must find anchorage not in the world alone, nor in the exclusive subjective self, merely, but rather in the meeting of those realms in the conscious activities and purposeful expressions of mankind throughout historic time.

4.) The crucial terms of "dignity," "worth," "freedom," have not hitherto received adequate definition and elucidation in the full semantic sense.

5.) Is our humanities revival a temporary Renaissance? Or better: What will happen when the majority among educators grow tired of the present humanistic flurry, or even of the word "humanities" itself? Will they remember Shakespeare's query, "What's in a name"? Will they, in short, retain the essential good which constitutes any true process of liberation no matter what the name may be?

6.) "Neo-humanism" of the 1920's evinced distrust of scientific thought and metaphysical speculation, remaining solidly ensconced, however, in a kind of absolutistic rationalism. Scientific humanism of the 1930's and the 1940's

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likewise combated metaphysics of a neo-Thomistic and, generally, of a theistic variety, although it adopted easily enough the metaphysical assumptions and conceptions of the most abstract forms of theoretical science. And, lastly, "integral" or "Christian" humanism, of the past and of the present, is opposed to both kinds because of their "anthropocentric" character, stipulating that man must be rehabilitated in "the human person considered as the image of God"³⁰ Such conflicting views would seem irreconcilable indeed. But to the protagonist of the historic and contemporary humanities there is an abiding core of truth in every one. Because we know that science can be humanized for the general welfare of mankind, we know too, that man's reason can be overly proud and in its calculations spell destruction, but that it can also be guided by the accumulated wisdom of the race; and, in conclusion, we have come to see that the ideals enshrined in religious faith, when they do not harden into mere formalistic tenets and hinder the free progress of the human mind, can by a spiritual urgency impel all men on a path that leads beyond man and towards that which we have learned to symbolize as the Divine.

Now and in the future to be, an innate modesty should make us unwilling to admit that "man is the measure of all things." Greek tragedy should have taught Protagoras that lesson. The world wars of our times should similarly teach us that our power, science, and proud technology are not man's full measure today. And that instead, we should be persuaded humbly to walk with our living great humanists of all countries. Fortunate for us, that in this impressive group belong men like Albert Einstein, Thomas Mann, Jawaharlal Nehru, John Dewey, Albert Schweitzer, Toyohiko Kagawa, Ortega y Gasset, Giuseppe Borge, Jan Smuts, Lewis Mumford, Madame Chiang Kai-Shek, Jacques Maritain, St. Exupery, and other spiritual leaders all over this globe.

One simple question remains to be asked: Can the humanistic approach, as advocated throughout this chapter, help to minimize and transform into common good the latent destructive factors which lead to enmity, greed,

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cynicism, and world catastrophe? Our answer must ultimately depend upon two acts of faith: we must, first of all, be willing to become not merely more intelligent but also kinder and therefore better men; and, we must likewise possess and practise for the benefit of everyone an increasing faith in the dignity and worth of all men.

NOTES ON THE CHAPTER

1. Consult for further details these careful accounts: P. Beesley, *The Revival of the Humanities in American Education* (New York: Columbia University Press, 1940); and F. Shoemaker, *Aesthetic Experience and the Humanities* (New York: Columbia University Press, 1948), pp. 149-189.
2. P. Beesley, *op. cit.*, pp. 7, 8.
3. F. K. Foster and H. C. White, *Victorian Prose* (New York: Prentice-Hall, 1930), pp. 560-571.
4. For a brief and keen analysis of this period consult E. H. Hale, *Challenge to Defeat* (New York: Henry Holt and Company, 1926).
5. Committee reports quoted in Patricia Beesley, *op. cit.*, pp. 42-43, 48-49.
6. R. F. Scholtz, "The Curriculum at Reed College," *Educational Record*, IV (April, 1923); Francis Shoemaker, *Aesthetic Experience and the Humanities*, pp. 161, 162; and P. Beesley, *op. cit.*, p. 107.
7. As a student participant, I can testify to the enduring success of that early venture. Also, I had the privilege of knowing Dr. Scholtz and learning of his pioneering program in the humanities before he left for Reed College.
8. Alexander Meiklejohn, *The Experimental College* (New York: Harper and Brothers, 1932).
9. See F. Shoemaker, *op. cit.*, pp. 155-189, for other details of chronology and general aims.
10. T. M. Green, *The Meaning of the Humanities* (Princeton: Princeton University Press, 1938), pp. 42, 30. Italics mine.
11. *Ibid.*, pp. 14-15.
12. *Ibid.*, pp. 22-30. I have briefly summarized the main points to save space. See also P. F. Valentine's chapter on "American Education Today," in this volume, for further confirmation of such main objectives.
13. P. Beesley, *op. cit.*, pp. 26-28.
14. T. M. Green, *op. cit.*, pp. xvii-xviii. Italics mine.
15. *Ibid.*, p. xvi.
16. T. M. Green, *The Arts and the Art of Criticism* (Princeton: Princeton University Press, 1940), p. 232.
17. J. E. Sandys, *A History of Classical Scholarship* (Cambridge: Cambridge University Press, 1908), II, p. 71; W. H. Woodward, *Vittorino da Feltre and Other Humanist Educators* (Cambridge: Cambridge University Press, 1905), pp. 102, 106-118.
18. Werner Jaeger, *Paideia* (New York: Oxford University Press, 1939-1944), II, p. 33.
19. For much of this material, I am indebted to Professor Werner Jaeger's keen and revealing analysis of Greek culture and education, *ibid.*, pp. 27-76, 195, 277, 278.
20. W. Jaeger, *op. cit.* See chapter on "Socrates as a Teacher."
21. B. Jowett, *The Dialogues of Plato*, "The Laws."

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22. W. H. Woodward, *op. cit.*, pp. 36-65 (on curriculum and methods), 67, 90-92; consult also Ferdinand Schevill, *The First Century of Italian Humanism* (New York: F. S. Crofts and Company, 1928).
23. See Wilhelm Windelband, *History of Philosophy* (New York: The Macmillan Company, 1910), pp. 357-363, 378-399.
24. P. Beesley, *op. cit.*, pp. 28, 73-106.
25. John Dewey, "The Function of the Liberal Arts College in a Democratic Society," *The American Scholar*, XIII (Autumn, 1944), 391-406.
26. Helen M. Walker, *Elementary Statistical Methods* (New York: Henry Holt, 1943), p. 2.
27. For a partial treatment look up George Boas, *Our New Ways of Thinking* (New York: Harper Brothers, 1930).
28. For further elucidation see the present author's article, "Semantics," in the *Encyclopedia Americana*, (New York, 1945).
29. An up-to-date study of this subject is Professor W. M. Urban's chapter, "Axiology," in Dagobert Runes' *Twentieth Century Philosophy* (New York, Philosophical Library, 1942).
30. Consult Jacques Maritain, *The Twilight of Civilization* (New York: Sheed and Ward, 1943), chap. II, "The Crisis of Modern Humanism;" also refer to Oliver L. Reiser, *The Promise of Scientific Humanism* (New York: Oscar Piess, 1940), pp. 243, 244, and chap.'s XVI and XXI; and Norman Foerster, *America and Humanism* (New York: Farrar and Rinehart, 1930), chap. I.

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PART II
PSYCHOLOGY IN EDUCATION

CHAPTER VIII
THE PROBLEM OF MOTIVES

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Some Historical Solutions

Motivation as a separate problem could hardly exist for primitive man. He conceived of all behavior as resulting from the activity of a special power or force variously known as spirit, soul, or mind. His conception of the nature of man was dualistic. Man was not one but two. The one was the physical self which could be seen and felt. The second self was an immaterial duplicate of the first. On occasion the second self could detach itself from the first, transport itself instantaneously from place to place, and perform practically all of the functions of the two together. Dreams represented a temporary withdrawal of the immaterial from the physical self. Comas and trance states constituted more prolonged withdrawals of the spirit, while death represented a permanent separation of the two. Since the physical lost most of its functions when the immaterial self left it, the latter came to be considered the real animating force. Thus the activities of the individual

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were thought to be the result of a second being which dwelt within the first and represented the true activating force of the organism. According to this conception, all behavior was the result of this "man within the man" who directed the physical being.

As long as this animistic notion was prevalent, the problem of motivation could hardly arise. Motivated behavior, like all other activities, resulted from the operations of this hypothetical entity. Bergson has called this animating entity *élan vital*, McDougall a *hormic force*, Schopenhauer a *will*, Driesch an *entelechy*, Freud a *libido*. All of these postulate the existence of a special force or power or entity which accounts for the particular characteristics of motivated and purposive behavior. These all differ only in degree from the old animistic conception.¹

What are the limitations of these conceptions? Why are they not seriously considered by psychologists today?

First, no positive evidence in support of the conception has been discovered. It is purely a hypothetical concept. Second, as a hypothetical concept, it is neither a useful nor a fruitful one. Explaining an event by postulating an inaccessible, immaterial entity as responsible for it simply makes scientific inquiry impossible. It states the problem in an unanswerable form.

Finally, the animistic conception really does not solve the problem. It is essentially a refusal to deal with the question. Instead of accepting a person's activities as his own and attempting to account for them as such, we postulate an inner person or entity and attribute the activities to it. The critical individual, who refuses to be satisfied by a name in place of an explanation, will push the inquiry further by asking what makes this inner entity act as it does. The reply to this question can be either a refusal to try to answer it or an answer in kind which postulates another entity within this inner entity to direct *it*. This postulation of entities within entities may go on forever, but the original question still remains unanswered. We still have everything to explain concerning the last entity which we postulate that we had to explain about the person originally. We have only put off dealing with the problem by

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postulating a series of forces to do the things we are interested in explaining. An explanation that only restates the facts and problem over again is not an explanation.

Another still more recent conception of the basic nature of motivation comes down to us principally from the famous educational philosopher Herbart. He assumed that motivational forces were inherent in *ideas themselves*. Ideas, for him, were essentially dynamic entities which tended to resolve themselves into action. Each idea was somehow striving for self-realization in action.

We no longer consider ideas to be activity-striving entities as did Herbart, but we have implicit in much of our everyday thinking the same assumptions that Herbart made. The average person erroneously believes in the motivational power of knowledge and information. When we want to produce good behavior in a citizen we give him information about social and political processes. If we want our children to be courteous we teach them rules of courtesy. To produce an ethical individual we prescribe a course in ethics. We take for granted that information, knowledge, and understanding generate the desire to act intelligently and wisely. Mere knowledge is thought somehow to carry with it its own dynamic drive. We continually criticise people for things they do on the ground that they "certainly know better."

The fact is that the drives to activity do not come from information, knowledge, or the intellect in general. The dynamics of activity come from the wants and desires of the individual. Information, knowledge, and skills are only the means by which our desires and wishes may be realized. If the person already desires to act courteously, ethically, morally or for the social good, information on etiquette, ethics, morals, and social affairs, will result in these desirable behavior outcomes. In the absence of sufficient motivation all the knowledge in the world is of no avail.

An education that is content to concern itself with merely imparting accurate information and neglects the motives that lead to the use of the knowledge will forever remain sterile and impotent. Information only provides us with

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tools. Understanding only sets up sign posts to guide us. Something else is necessary to make us use the tools and take advantage of the sign posts. Desires, wishes, wants, and motives must be implanted and associated with the knowledge to make it functional.¹ Intelligence can guide but motives must supply the drive to make the human machine go!²

Explanations of motivated behavior must be in terms of cause and effect relationships. These causal factors include the hereditary make-up of the individual, the accumulated experiences of his lifetime, his chemical and hormonal conditions, as well as the total situation in which the individual finds himself.

A satisfactory theory of motivation must somehow fit itself into such a naturalistic framework. This we shall now proceed to do. We shall try to identify motives, to explain the process of motivation, and to account for the purposive characteristics of motivated behavior without the assumption of any immaterial forces, powers, or entities. We shall try to state our explanations in terms of purely naturalistic cause and effect relationships.

Some Definitions

In its literal sense to motivate is to induce movement. Thus defined, the problem of motivation would include the explanation of all behavior, whether simple or complex, voluntary or involuntary, purposive or reflex, innate or acquired. In this broad sense, every response and every modification of a response is motivated. Some authors have chosen to maintain this original all-inclusive meaning of the term.³

We believe that the concept becomes more useful when it is defined more narrowly and limited in its reference to certain specific problems of behavior. Let us tentatively list some of the distinguishing characteristics of "motives," the process of "motivation," as well as "motivated behavior," before attempting a formal definition of the concept. Other terms used to refer to typical motives are wishes, wants, needs, cravings, aversions, annoyances, discomforts, and

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purposes. One thing which characterizes all of these is persistence in terms of stimulation, goal direction, or behavior trend. A pin prick is hardly a motive, although constantly repeated pin pricks may act as a motivating factor. Motivation is a long-range process.

Motivated behavior is activity of a continuous or serial character. Such behavior ordinarily continues until something occurs to satisfy the motive. The motive may be satisfied by supplying the need (eating food when hungry), attaining the wish, want, or desire (getting social approval), getting rid of or getting away from the annoyance or irritation (putting on more clothing when cold), or attaining one's purpose (becoming a doctor as a vocational ambition).

Let us define motive then as a relatively persistent condition which induces goal-oriented behavior directed toward the satisfaction of the motive. "Motivation" is the process of producing such conditions. "Motivated behavior" is the activity so produced.

"Incentive" refers to the goal object, condition or change in condition, experience, or change in experience which satisfies the individual (e.g. food when hungry). Incentives may be single or multiple, simple or complex, immediate or remote, physical or social, positive or negative.

"Drive" is the condition (either internal, external, or both) which initiates activity. It is a part of a motive. It is that which releases the energy of the organism and results in activity. The energy so released is not supplied by the stimulating condition. It represents energy stored within the organism. The drive is a condition within or without the organism which acts as trigger to release the energy. The energy so released results in behavior. Every activity of the organism involves such energy release and transformation.

Motive is more inclusive than drive. Motive is drive plus activities directed toward the removal or perpetuation of the condition constituting the drive. Drives may be innate, organic, or physiological on the one hand, or learned and largely social on the other. The innate drives are called

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primary. The organic basis of many of these (e.g. hunger, thirst, sex) is known. The learned or acquired drives are mostly social in nature and are called secondary drives or motives. Secondary drives have reaction patterns associated with them which have in the past been found to satisfy the drive.

Classes of Motives

Motives may be classified on the basis of origin into the innate or acquired, organic or social, intrinsic or extrinsic; in terms of effects into immediate or delayed, facilitative or inhibitive, self preservative or race preservative.

We have selected a classification which is not quite so simple as any of the above. It is a five-fold division. The five groups we shall call (1) physiological needs, (2) safety or security needs, (3) love, affectional or response needs, (4) esteem or recognition needs, and (5) apparently autonomous activities. This classification is in terms of results, purposes, or goals of behavior.⁴

We do not hold that this classification is either absolute or final. The classes are not even mutually exclusive. We do believe that it is useful and meaningful.

Physiological Needs

The most basic and fundamental of all needs are the physiological ones. When unsatisfied they become the most impelling and demanding of all. First we shall consider the homeostatic needs. Homeostasis has reference to the automatic mechanisms of the body which tend to maintain a remarkably constant state within the organism. Any deviation from the optimum state brings into action a series of activities designed to reestablish the normal. For the most part, we are unaware of the operation of homeostatic needs. They are automatic bio-chemical and physiological adjustments which ordinarily keep the conditions essential to life within certain rather narrow limits.⁵

It has also been shown that in addition to the automatic internal adjustments that occur when the body levels

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for these elements vary from the optimum, the individual tends to develop a kind of hunger, craving, or appetite for at least some of the deficient ones.⁶ The typical homeostatic needs are: temperature regulating needs; water level (thirst); blood sugar level (hunger); needs that tend to regulate the protein, fat, calcium, and sodium chloride content of the blood; those tending to regulate oxygen level and acid base level of the blood. Since all of these are usually taken care of by basically physiological or biological processes, we shall omit detailed consideration of them as such.⁷

However, a long series of research studies has shown some interesting facts concerning food preferences and bodily needs.⁸ It has been shown that many animals, including the human infant, select food items when given a free choice so that the proportions of fat, protein, carbohydrates, minerals, vitamins, and water are such as to maintain normal growth and health. During pregnancy, lactation, and previous deprivation of an essential element in the diet, the proportions of the various food elements eaten vary according to the changing needs. For example, rats after being deprived of the vitamin B complex develop an overwhelming appetite for it. They likewise definitely prefer foods which contain the vitamin to those which lack it. Cattle suffering from phosphorus deficiency eat bones which contain it. Animals deprived of salt develop a special salt hunger. In gestation and lactation there is an increase in the intake of sodium chloride, sodium phosphate, and calcium lactate. When the adrenal glands are surgically removed from rats they ordinarily die from excessive loss of salt from the body in from 10 to 15 days after the operation. If such rats are given free access to abundant salt the amount eaten may increase as much as ten times and they are able to keep themselves alive.

Likewise rats whose parathyroid glands are removed normally develop tetany and die due to a drop in the calcium content of the blood. If such rats have free access to calcium their ingestion of the element increases almost four times and they do not die. Subsequent implantation

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of parathyroids causes the calcium intake to return to normal.

It has been found that newly weaned infants, when permitted to select their own food from a wide variety, grow exceptionally well and are^factive and healthy.

Food preference and appetite, however, are not infallible guides in diet. They are not sufficient to prevent children as well as adults from eating various poisonous plants, animals, and other things. Insects, mice, rats and many other animals are successfully poisoned daily. Similarly, not all studies have shown proper choices being made in self-selection diets. It seems clear that in order for a proper choice to be made the animal must be capable of *discriminating* between the foods offered. Where there is no discriminable difference between the absence or presence of some food element a choice on this basis is impossible.

Putting all of these facts together we probably have operative something like the following: Let us suppose that a person for the first time in his life, due to a restricted calcium intake, develops a need for calcium. This need makes him irritable and restless. He becomes uncomfortable. He does not know the cause of his discomfort but he is unable to keep still. He indulges in a great variety of activities. He walks about, talks, drinks, eats, and does a great many other things. He happens to eat something containing considerable calcium and consequently feels better. He eats more and becomes quiet. The next time he gets restless and uncomfortable (the type of discomfort may differ for the various needs) he may recall what he ate before and do likewise again. In time he learns what foods give him the greatest and most immediate relief so that he promptly sets out in search of them as soon as the need is experienced. Thus an initially indiscriminate drive comes, as the result of learning, to have associated with it a series of activities which lead to its satisfaction. Such a complex is a motive. It is purposive in nature.

The role of endocrine glands in motivation. Not all organic drives are based on specific needs. They are not all homeostatic in nature. Some of them are glandular in ori-

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gin. The hormones secreted by the various endocrine glands have a profound effect on one's behavior level. Some of them, in the lower animals, at least, produce specific response patterns.

Surgical removal of the pituitary, adrenal, sex, or thyroid glands results in a decided drop in activity. The animal becomes slow, lethargic, and inactive. The food intake also drops decidedly.⁹

In the lower animals, it has been shown that the gonads (sex glands) not only have a profound effect on the general activity level of the animal but they also produce very specific ways of acting. The general patterns of activity associated with mating are clearly the result of the endocrine hormones secreted by the gonads.

Since the normal human is from 12-18 years of age before sexual maturity is attained it is difficult to determine just what is innate (activated by the gonads) and what is learned. Most workers think that the organic factors operate, like hunger, to increase the activity level of the organism, to heighten its irritability (particularly that of the so-called exogenous zones of the body), and to lower the threshold of the reflexes associated with sex. The specific ways of acting which constitute courtship and even the attraction between the sexes are thought to be learned.

The maternal drive is also related to endocrine hormones. Just how important the hormonal factor is in humans is not known. In the male and virgin female rat it has been shown that the administration of the "lactogenic" hormone of the anterior pituitary produces mammary gland development and typical maternal behavior. It likewise produced in males:

- (1) Nest building for young put in their cages.
- (2) Nest building and nesting even in the absence of young.
- (3) Settling down for long periods on a pile of newborn rats placed in their cage, as well as other typical maternal behaviors.

None of these reactions occurred in normal brothers and virgin sisters not receiving such injections.¹⁰

This same hormone, when injected into the domestic

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fowl, produced a decrease in size of uterus and ovary as well as diminished size of comb and space between the pelvic bones. Simultaneously there appeared clucking and "nesting" characteristic of the broodiness of the "setting hen." By similar injections two roosters were made to cluck the same as broody hens but showed no interest in the eggs and nests provided for them. It is interesting to note that broodiness was not produced by prolactin in most of the white leghorn hens. This is a "non-broody race." Apparently some factor necessary for broodiness has been eliminated from most of the individuals of this breed by a process of selective breeding.

These facts suggest the possibility that prolactin may be associated with maternal behavior in humans. However, it is also possible that humans are like the "non-broody" breeds of chickens and do not respond to this hormone. It seems quite certain that much, if not all, of the ordinary maternal behavior is learned.¹¹

Last there is an additional group of inborn behavior tendencies the organic bases for which are not known. These can be identified only in terms of the general trends which they represent. Some of these are:

- (a) The tendency to be active when rested — the exploratory urge.
- (b) The tendency to rest when tired.
- (c) The need for sleep after deprivation of sleep.
- (d) The tendency to avoid any form of noxious stimulation.
- (e) Certain innate likes and dislikes.

Other physiological needs. Except for these last groups, the general pattern of the organic or physiological drives is fairly clear. Internal or external changes operate as persistent stimuli which cause the individual to be active. On the human level, the resulting behavior is initially random, restless, and diffuse. Drives originally are blind. They represent stimuli "from behind." With experience the individual learns appropriate acts or goals to relieve the irritant or to perpetuate the pleasurable experience. He then comes to search for such goals. Thus hunger as a primary drive develops into food seeking as a motive. After

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the primary drives have become associated with their appropriate goals they are "pulled," as it were, from in front. The goals become "loaded" stimuli in evoking action. Motives are such drives modified by experience. In other words, the individual finds satisfaction for his physiological needs in ways learned from experience.

What was said about the importance of the hunger and thirst drives applies to most of the other organic drives as well. When deprived of the means of satisfaction they become very powerful motivating forces. When a person is chronically deprived of food, drink, the means of keeping warm, rest, sleep, and sex satisfaction they come to be the most important things in the world. The person may devote his entire ingenuity, intelligence, skill, and strength to obtain the means of satisfying them. His affectional needs, his prestige, and his future security, in broader sense, are all pushed into the background in a primitive struggle for existence. Man first must eat, drink, sleep, rest, reproduce, and protect himself from extremes of temperature as well as from physical destruction. These are the primary basic primitive needs. Man shares these with the rest of the animal kingdom.

However, civilization is essentially a set of adaptive mechanisms whose purpose is to prevent the physiological needs from becoming either acute or chronic. Today a given society is rated basically and fundamentally in terms of its ability to provide regularly, certainly and easily for these basic biological needs.

The elaborate procedures of raising, processing, and transporting food are not motivated directly by the hunger drive. They are rather institutional devices for providing for the nutritional needs of people so as to prevent chronic hunger from arising. These activities contribute to a modern society to the extent that they are able to do this. For the most part extreme hunger, thirst, fatigue, and unfavorable temperature conditions are emergencies which occur rarely. This means that, for the most part, the organic drives have been pushed into the background in modern society. Satisfied needs are no longer needs. Man with his organic needs reasonably satisfied is thus freed to devote

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himself to the attaining of the other "higher" needs such as security, prestige, and affection.

Love, Affectional, or Response Needs

Sex is a purely biological need. Love, on the other hand, includes desire for the presence of associates, friends, and children as well as sweetheart and wife. It is essentially a desire for the establishment and perpetuation of pleasant contacts with others. It is a wish for the personal presence and communication with other people. It involves varying degrees of physical contact. It is sentimental in nature.

The love or response needs grow up very early in life as a result of the child's contacts with others. From birth the child is constantly associating with other people. The social phases of his environment come to be the most potent sources of his pleasures. People are the food givers, the warmth providers, and the irritant removers in general. Physical contact with and the mere presence of other people come to be desirably pleasant in themselves as the result of these associations. Consequently, we come to desire contact with, communication with, and cooperation with other people. We thus become gregarious. We feel lowly when deprived of human fellowship. Habituation to the presence of others is a prerequisite to loneliness when away from them.

However, when these affectional relationships have become established they become powerful motivating forces. We come to identify ourselves with our loved ones, our friends, our classmates, and our nationality in varying degrees. When away from them we wish to return. Men in the army or in prison camps come to suffer extremely from the lack of affection. Many of them may not be aware of it, others who are may be inclined to deny it. Behind their rough cynicism, which often represents only a "front," is a genuine desire for affection and love. Their tender care for animals and children is evidence of the real character of the need.

So normal man not only has his physiological needs, he also has decided affectional wants which demand satisfaction. When the basic physiological needs are acute and

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prolonged, the affectional needs are pushed into the background. When life is a ruthless struggle for individual survival these needs alone dominate life. When these are reasonably well taken care of the affectional needs assert themselves.

The Prestige or Esteem Needs

When Joseph Jastrow¹² insists that what man wants most of all is to feel important, he is insisting on the supremacy of the esteem needs. Jastrow is of course thinking in terms of modern civilized man whose physiological, safety, and affectional needs are reasonably well taken care of. Prestige is not the most important thing in the world to the starving man nor to the one who is chronically hungry. Neither is it to the man whose life or freedom is in constant danger. Civilization has changed man's chief earthly occupation from that of saving his physiological "skin" to saving his social "face."

We live in a society in which the child who can hardly talk has already learned that many of life's sweetest satisfactions are those associated with the maintenance or elevation of one's prestige. There develops in most people an almost universal desire to outdo one's fellows. This competitive race for superiority comes to be one of the most prominent of our traits and there is hardly an aspect of social relationship which does not bear its imprint. We all like to feel important, to be considered graceful, strong, powerful, and beautiful. We like to receive the recognition, the applause, and the acclaim of our fellow men.

It is interesting to observe the number of conversations that take the form of a duel for supremacy between the participants. If one relates something of interest, the other attempts to relate something more interesting, more startling, or superior in some way to the one which has preceded. The person whose story is bigger, or more startling or superior in any way to the others, borrows a part of that superiority because the story is his.

The child is not very old before he also discovers that no one is absolutely big or small, tall or short, good or bad,

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strong or weak, sinful or virtuous. He is only so in comparison with other people. Thus one can satisfy his own desire for a superior position, either by elevating himself actually, or in the eyes of his fellow men, or by lowering the others with whom he is compared, thus elevating himself relatively.

Thus, one comes to minimize one's own limitations or defects by contrasting them with the greater flaws in others. If someone can prove that all his comrades are ugly, his sense of his own lack of beauty is not so poignant. If another has more money than he has and he can show that it was obtained by dishonest means, he has compensated for his poverty by a show of virtue. When this tendency is carried to an extreme we have produced a highly critical individual who is constantly on the alert for the shortcoming of others, who has no mercy on them, but gloats over their misfortunes, because he thus makes himself appear better by comparison.

The tendency to inflate one's self-esteem by jeering at the failures of others often starts very early in childhood. In the schoolroom we often see children tittering at the discomfiture of others. Many an ignorant teacher aggravates this attitude and thinks that a good way to punish an offender is to get the rest to ridicule him. It may serve her immediate purpose, but she is possibly setting up an inferiority feeling in the ridiculed child that may later prove serious; and she is doing children who laugh and titter an injury in that she is teaching them a wrong method of gratifying their own prestige needs.

The ramifications of the prestige motive are almost infinite. The desire to be noticed, to be regarded as distinctive, to want to escape from the commonplace are all manifestations of it. Efforts to obtain school grades and other honors, to become skilled technically or artistically, to climb the social ladder, to get one's name in the papers, to cultivate the acquaintance of the great and the near great as well as our ever present attempt to magnify our own egos are all ways in which the prestige motive may manifest itself.

Prestige always grows out of the cultural values of the

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civilization concerned. People will strive to attain superiority in those traits which the particular culture values highly. The child grows up in and unconsciously absorbs the social evaluations of his group.

In America we have idealized competitive success to an extreme degree. The average child has drilled into him from birth the ideal of the strenuous life. He is taught that whatever he does, he must do with all his might. As our copybook maxims and our daily preachments have it: "There is always room at the top"; "There is nothing that you can't do if you only want to badly enough and try hard enough"; "If at first you don't succeed, try, try again!"; "Hitch your wagon to a star"; "Excelsior!"; "Onward and upward!"; "No matter what you do, you should do it better than anyone else in the world"; "Never be satisfied until you are at the top." Every boy is taught that he is a potential millionaire, a possible President (excluding only the foreign born).

As the result of this constant pressure, the average American develops an enormous drive for superiority. It also sets the stage for inevitable widespread discontent, dissatisfaction, discouragement, and profound feelings of inferiority. To imbue a boy of limited capacities with a hitch-your-wagon-to-a-star philosophy is only to invite him to spend his life "beating his head against a stone wall" and to go through life feeling futile, disappointed, and guilty that he has never fulfilled his destiny.

The fact that a very large percentage of young people are planning to prepare for the higher professions whereas society could not possibly absorb such a disproportion on this level means that inevitable disappointment and feelings of futility will result. Motivation of all sorts can be overdone. We shall return to this later.

Safety or Security Needs

Man is motivated by the *direct* operation of the organic, affectional, and prestige needs. As the result of learning, he also comes to react to any *threat* to his means of satisfying these needs, much as he responds to the actual operation of the needs themselves. Man not only wants his or-

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ganic, affectional, and prestige needs satisfied; he also desires a reasonable certainty as to the probabilities of their continued satisfaction in the future. In other words, man not only responds to actual deprivation, he also comes to respond to threatened or possible deprivation. Out of this we have developed the safety or security needs.

Safety or security is not a specific drive as is hunger, thirst, or even affection, but it cuts across all of these other needs. The security needs come into operation whenever any of the other basic needs of the individual or one's means of satisfying them are in danger of being thwarted. Actual deprivation may operate to produce a direct loss effect and indirectly to produce a threat effect. The latter is sometimes the more important psychologically. Thus a severe accident or a humiliating experience may produce temporary organic loss or pain but it may also arouse in the individual a feeling of general insecurity, a notion that the world is essentially hostile and threatening. These latter effects may become permanent and be much more important psychologically.

Security originally and basically is biological. It represents freedom from threat of physical destruction, physiological need or injury. From this it gradually expands so as to include one's personal security and freedom from want for the members of his family, his friends, his neighbors, the inhabitants of his city, his state, and his nation. It likewise expands to include security for his home, his lands, and all of his possessions. It also extends to his reputation or social status, and finally to his beliefs and convictions.

Attacks or threats of attack on any of these come to evoke the same responses that attacks or threats to one's physical self do. Thus suppression of one's freedom of religion, political belief, and speech come to be threats to one's security.

A threat to one's job which represents a means of keeping the biological needs from operating is, in reality, a threat to one's security. "Hunger" for modern man really represents a threat of unemployment. It is really one's security needs that are brought into operation, not physiological hunger pangs. Just as a large section of our econo-

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mic life is concerned with keeping the organic needs from becoming acute, so similar proportions of modern society are devoted to taking care of our demands for security. Insurance of all kinds, including "social security," our armed forces, police, fire departments, health departments, preventive medicine, saving accounts, political parties, labor unions, churches, as well as superstitious and religious practices, have arisen, at least partially, as the result of man's desire for security.

The security drives are essentially conservative in their nature. They are operative when a man accepts a small, regular but fairly certain income in preference to the risks of going into business for himself, of speculation, or gambling. It also manifests itself in a preference for a certain regularity and order to life. A certain amount of routine, that can be counted on, makes for a feeling of security. People, groups of people, and societies differ markedly in the importance which they attach to security, but all have some security needs. Injustice, unfairness, and inconsistency are universally condemned because they represent a threat to security.

It is interesting to note that the German people, despite control by the Nazis for more than a decade, insisted on maintaining the semblance of orderliness and legality in all of their dealings with minority groups and occupied countries. For example, prisoners in concentration camps were required to sign documents stating that they agreed to their imprisonment and that they were pleased with the way they had been treated.¹³ This general insistence on the strict legality of the official German policy probably represents an effort to suppress any feeling that their acts of violence threaten to destroy the very foundations of their social order. The signing and preservation of these documents, which they considered to be very important, apparently had value as a demonstration that everything happened according to law and order.

In child psychology today great emphasis is being placed upon the security needs of the child. The importance of consistency in discipline, a certain amount of rhythm and routine, a predictable and reasonably orderly world are

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repeatedly stressed. Conversely, quarreling, separation, or threat of separation, arbitrary and unjust punishment by parents, make the child's world unreliable and unpredictable. He feels that he has nothing to tie to; nothing to depend upon. The thing that is right today is wrong tomorrow. The mother's good is the father's bad. Such situations often produce anxieties and even panic and terror out of proportion to physical discomfort and pain involved. These conditions represent a loss or absence of safety, security, and protection. A normal, stable home and parents mean security and safety as well as food, drink, warmth, and love.

For best development the average child needs some regularity, rigidity, and stability to his way of living. A certain routine, some rough schedule, seems to be necessary to give him a feeling of security.

On the adult level our desire for a certain feeling of security is partially responsible for our preference for the known rather than the unknown, the familiar or partially familiar, rather than the unfamiliar. Much of the satisfaction that people derive from a fixed philosophy of life or religious belief comes from the feeling of security they derive from it. Man's never-ending struggle to see and understand the universe in some coherent, consistent, and meaningful way, which is philosophy, is partially motivated by his security needs.

Man's security needs are reasonably well taken care of in a normal, well regulated society. When a person attains adulthood with understanding, consistent, loving parents, with social status, physiological needs and safety needs cared for, he is motivated immediately and directly by them only occasionally. We wish to emphasize again that civilization is largely an institutionalized means of keeping both basic physiological and security needs from arising. Man is thus freed from domination of these lower needs, and may thus be motivated by the "higher" motives. Today, with most of us, the safety needs become acute only in emergencies. During war, riots, epidemics and other catastrophes the safety needs become imperative in their demands. If such extreme situations persist, the person's

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entire life may come to be dominated entirely by safety needs. They so engage his entire time and attention that he comes to consider them the most important things in the world. Practically everything, even food if immediately plentiful, becomes less important than security. Living comes to be for safety alone. A person under conditions of constant threat to his safety comes to feel that if he could just be in a place or position of complete security he would never want for anything else in the world. The direct effects of the organic needs, if adequately taken care of, are undervalued. Direct affectional and prestige needs are considered to be superfluous. The whole organism, all its intelligence, skill, strength, and endurance are safety seeking devices.

Apparently Autonomous Motivation

One of the puzzling problems of motivation is the fact that much behavior, particularly on the adult level, seems to be self-motivated. It seems to go on because of something inherent in the activity itself rather than because of any desirable goal that the individual hopes to attain, unpleasantness he hopes to avoid, or because of some drive that is impelling him onward. There is no doubt that such levels of control do exist.

One group of such activities is on the level of routine habit. The person originally acquires certain skills, habits, or other ways of acting and thinking as a means of satisfying his basic physiological, safety, affectional, or prestige needs. These develop into well-ingrained habits of acting and thinking. Later in life when he has attained complete satiation of all of these needs, so that the original motivation is no longer present, the activities still continue seemingly of their own momentum. There probably occurs in these cases a process of associative shifting; a substitution of secondary stimuli for the originally effective ones.

One of these shifts is to the proprioceptive level. This takes place in stereotyped activities. Initially the original motivating situation was necessary to keep the activity going, but with practice the kinesthetic impulse set up as

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a result of each movement comes to act as a substitute stimulus to produce the next. When this shift has become complete the original motive is not necessary at all.

Similarly the shift may involve exteroceptive controls. When a given activity always follows the sight of a certain preceding condition as a part of a motivated activity, the mere visual stimulation may become sufficient to bring about the response. Thus we have a shifting of controls from general motives to mechanisms within or situations accompanying the activity. In a sense, the activity becomes self-perpetuating or self-motivating.

The individual with such tendencies feels at home in carrying out these familiar activities. He feels "lost" or lonely when they cannot function.

We have a second group of apparently autonomous activities including those that have been variously known as self-realization, self-actualization, and self-expression. It also includes the old so-called "instinct of workmanship." It consists of a tendency to continue doing and improving one's skill in doing that which one likes to do, that which one does well. It is the tendency to attain a high degree of perfection in whatever one does irrespective of the approvals that are forthcoming or any specific need that is being satisfied.

This level of control is derived from the satisfactions of growing out of the previous use of various devices in attaining the satisfaction of the basic needs. For example, because the cabinet worker at first received money which indirectly administered to his physiological and security needs as well as social contacts, praise and recognition which satisfied his affectional and esteem needs as a result of his good workmanship, the pleasures derived from these satisfactions became attached by association or conditioning to the activities themselves. In other words, because pleasure accompanied or regularly followed good workmanship and improved skill, good workmanship and skillful performance became pleasant in themselves.

Thus through a shift in satisfactions the person comes to continue to improve and to maintain a high level of performance when the motives which originally were

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operative in maintaining them are abundantly satisfied and are no longer operative.

Play represents one of the largest groups of apparently autonomous activities in which this shift has occurred. Play is not a particular kind of activity. It is not just idling, resting, or dawdling. It is not necessarily easy. It is neither useless nor frivolous. It is often strenuous, useful, and educational. Play cannot be defined in terms of what the individual is doing or how he is doing it. It consists of activities which are carried on because of satisfactions inherent in the processes themselves. Play, as such, is intrinsically enjoyable in itself. It requires no outside motivation and has no end other than itself.

When a man derives satisfactions from his vocational activities so that he does them, or would do them, if all extrinsic monetary and social rewards were withdrawn, it is play for him. Conversely, the person who goes golfing mainly for congenial companionship, in order to attain social prestige, to attract clients, or to develop a healthy and powerful physique is not "playing" even though we conventionally insist that he is.

The play attitude carried over to specific learning problems is a very desirable type of motivation. Motivation through the medium of play produces learning because of satisfactions arising from the activity itself rather than because of grades, praise, or any other extrinsic rewards. Extrinsic rewards and punishment must be applied inevitably and immediately in order to be effective. Material rewards motivate only so long as they are forthcoming. Social motivation continues only so long as one's acts are, or may become, known to others. Satisfaction growing out of the activity itself is always present and continuously effective. It really represents the "highest" and most desirable level of motivation.

Extrinsic rewards are temporary expedients to be used only until interests and enthusiasms can be aroused and associated with the learning process so that the motivation becomes intrinsic. When this shift has taken place, the child studies and learns because he likes to, because he

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enjoys it, because of his interest in the subject. His study is then play and is self motivating.

A fourth group of apparently autonomous activities are those activated by an "ideal" of conduct. Our ideals are social products. They are really social habits. They typically represent the acceptance of beliefs, attitudes, and desirable levels of performance of our parents, families, and communities. The performances actuated by ideals originally are attempts to act in accordance with the desires and expectancies of those whose opinions we value. As the child grows up he comes to accept these social values as his own and may continue to act consistently with them even though the people immediately in contact with him do not share his beliefs and do not approve of his conduct levels. In the background of such standards is the conviction that they are "right," that parents, family, and others whose good opinions he values, approve or would approve did they know of the actions.

The process often goes one step beyond this. The person comes to conceive of the departed spirits of parents and friends as observing; or of an all-seeing eye which observes, records, and approves. These are thought of as ever-present and ever-watchful. They approve or disapprove of our actions even though our acts are in secret and will never be known to anyone on earth. The motivation for such so-called "ideals" is obviously only one step removed from the immediately social. Motivation is in terms of praise and reproof, commendation or censure from departed loved ones or a deity.

There is often another component to the theological conception which adds weight as a motivating force. This is the notion of reward and punishment in a hereafter. In addition to the blessings or ill-will of a deity which follows our conformance to or violation of his dictates, which the person has made his own in terms of ideals, is the belief that all acts are recorded and will bring their just rewards in the next world. From this belief comes the motivation for much of the asceticism of the past. It consists in the belief in a sort of compensatory or inverse relationship between the pleasure and pains experienced now and in the

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hereafter. This means that the greater the discomforts and pain of this life, the greater the rewards and pleasures of the next. Thus we have had an identification of pleasure and sin in this world with punishment in the next. Punishment of the flesh in the *now* brought a compensatory elevation of the spirit in the *hereafter*. This really represented a sort of compensating hedonism in which a lesser pleasure in this world is renounced in favor of a greater one in the hereafter. This undoubtedly is the motivation for much behavior which is unrelated to immediate pains and pleasures, either physical or social in nature. Motivation by "ideals" is thus, in reality, a derived type of social motivation.

Motivation in Education

Motivation forms the dynamics for the educational process from beginning to end. It is one of the most important conditions of learning. A high degree of motivation engenders an active, aggressive as contrasted with a passive, listless attitude toward the learning situation.

It has been shown that mere repetition does not produce learning. Only purposive, active repetition educates. The "will to learn" is necessary for efficient learning. Motivation is the process of inducing such active attitudes.

Turning to the motivation of learning we find that many of the organic drives are utilized directly as motivating forces principally with the lower animals. Hunger, thirst, sex, unfavorable temperature conditions as well as other forms of noxious stimulation such as electric shocks, or the maternal tendencies, are utilized singly or in combination to motivate learning in the lower animals. All of these serve as effective motives to learning.

From the standpoint of goals these can be divided into the positive incentives or rewards and the negative incentives or punishments. Food, water, presence of a desirable member of the opposite sex, or the presence of the offspring of the mother operate as rewards; while unfavorable temperature conditions and other forms of noxious stimulation operate as punishments.

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First as to punishments. Using as subjects rats, mice, kittens, chicks, as well as man, the following facts seem to hold true: For moderate intensities and for learning problems that are not too difficult, a positive relationship exists between the intensity of punishment for errors and rate of learning. When punishment becomes too severe or the learning problem is too difficult the effect is negative and disruptive. For example, the rat huddles trembling in one corner and refuses to move, the person becomes very cautious, is afraid, and finally withdraws and refuses to try.

Rewards must be appropriate in order to be effective. To be appropriate the reward must satisfy a need of the organism. Food is a reward only if the animal is hungry. Needs and rewards may be changed and motivation continue if the relationship between them is always an appropriate one. The stronger the drive the more rapid the learning. Similarly the greater the reward the greater the motivation and, within limit, the faster the learning. The longer the delay in administering a reward the less its effectiveness as a learning-facilitating agent. With rats, delays of twenty minutes or more reduce the effectiveness of a reward to zero. There seem to have been no experimental studies made of the effects of delayed punishment.

Combinations of punishment and reward are more effective than either incentive by itself.

From these facts it seems that in order for punishment to be effective as a motivating factor, it should not be too severe and the method of avoiding the punishment (the thing to be learned) should be well within the capacities of the learner. For greatest effectiveness rewards should be substantial, appropriate, and immediate.

The safety needs seem to be utilized very little as specific motivating factors in learning. They do operate in a general way to cause a person to want to acquire knowledge, skills, and information in order that he may attain a degree of security, but conditions of insecurity are seldom induced nor are rewards of greater security directly administered to motivate learning.

Likewise affectional needs are used very little as direct

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motivating agents in school work. It is involved, however, in the interpersonal relationships between teacher and pupil. It is the differential that causes one to work hard for the disliked teacher. Friendly cooperative attitudes in the teacher, the tendency to be "one of the crowd," a mutual sharing of problems, engender similar responsive attitudes on the part of the pupil. A large part of this is due to the desire to establish and perpetuate affectional relationships with others. Much has been said of the dangers inherent in too great a dependence on this type of motivation and of the ill effects of the establishment of too strong affectional attachments. This danger is real. Undoubtedly a portion of the motivational force of praise and reproof, the assigning of school grades and even of the administration of physical punishment and extrinsic rewards in general, is affectional in origin. These various acts symbolize, in the child's mind, the bestowal or withdrawal of affection.

Of all the classes of motives, the prestige group is used most extensively to motivate learning. Whether this is because we live in a highly competitive society or because the incentives are more easily controlled, is hard to say. Most of our "social incentives" appeal to the prestige of the individual although the affectional needs are also social in nature as are certain aspects of the security needs.

Beginning about 1916 and continuing up to the present we have had a long series of studies comparing recognition, commendation, signs of approval and praise on the one hand with disapproval, reproof, reprimands and ridicule on the other.¹⁴ The studies consistently indicate that the positive incentive of commendation and praise are uniformly superior to the negative ones such as reproof and reprimand. Reproof is better than no incentive. With long continued use, reproof loses its effectiveness much quicker and to a much greater extent than does praise. Some recognition of one's accomplishments, regardless of its nature, is superior to ignoring the performance. Indiscriminate use of either rapidly decreases its effectiveness. Duller children usually respond more actively to praise while with the better students reproof is relatively more effective. This is probably because of the elements

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of change or novelty. A slight sex difference has been found, in that boys are relatively more influenced by reproof and girls by praise.

The positive group of incentives listed here represents those which elevate one's prestige while the negative one's tend to deflate it. It is surprising that we have had no well-controlled studies of the effect of the combined use of praise and reproof in a discriminating fashion. In such a situation praise would be administered for successes, improvements, and desirable changes in general; the extent of the praise being proportional to the degree of improvement while reproof would follow and be associated with mistakes, errors, and failure to improve. Here we would have involved the combined effects of both the positive and negative incentives in a discriminating and proportional fashion. This situation is undoubtedly most favorable for maximum motivation.

The prestige motives are also actively involved whenever rivalry is the dominant factor. In a highly competitive society such as ours, it is doubtful that rivalry is ever entirely absent. The prestige element is essentially comparative and competitive in its nature.

When pairs of children from age three upward each constructed play houses out of blocks and then were asked to indicate which was prettier, an increasing percentage of them said their own was prettier as the ages increased.¹⁵

If a child is administered an electric current of gradually increasing intensity until the threshold of "intolerable" pain is reached, the threshold is always higher when a group of onlookers is present, and highest of all when he is competing with a boy of about the same age and size.¹⁶

A desire to excel, an impulse to do better than our rivals, very early in life comes to be an almost universal tendency. Most people under most conditions do more work in competition than without it. Those who do worse are either overstimulated to the point of interference with their muscular coordinations or they are hopelessly inferior and become discouraged.

Another type of motivation which has uniformly had a decided effect on the rate of learning is knowledge of

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results. We have recognized for a long time that practice without knowledge of results is largely waste motion. This factor operates in two ways to facilitate learning. The one is purely informative. In shooting at a target, knowing the direction and extent of one's misses helps in their correction. Knowledge of results is also motivational. The satisfaction of success, on the one hand, and the chagrin of failure on the other, constitute stimulants to further effect. The self-satisfaction or dissatisfaction of success or failure is social in origin. It derives from the belief or knowledge of superiority or inferiority in comparison with others.

The fact that mere knowledge of the speed of one's reaction brings an increase in that speed even when the person insists that he is already responding just as quickly as he can, indicates that the motivational factor is real.¹⁷

This factor may represent either a desire to do well for the experimenter or an attempt to beat one's own previous record. The latter is really auto-competition and is quite important. One may become more interested in surpassing his own previous record than in beating a competition. This condition is the end-result of situations involving social commendation for attaining and maintaining high levels of achievement or rates of progress in all that one does. It may come to represent an ideal of conduct which is quite general in its application.

Dangers of Over-Motivation

In our enthusiasm over the importance of powerful motives in our lives we must not overlook the fact that there may be some unfortunate consequences of over-motivating.

We have already pointed out that severe punishment may become disruptive and condition the individual negatively toward the whole situation rather than facilitative and positive in its effects on learning. Likewise the promise of great rewards may stimulate the individual to such an extent that over-anxieties concerning possible failure induce excessive tensions and motor incoordinations with particularly deleterious effects on accuracy of performance.

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We have also indicated that since prestige motivation is essentially competitive and comparative, one's success may be handicapping because belittling one's competitors may be substituted for bettering oneself.

There are still other undesirable consequences of over-motivation of the prestige-enhancing competition type. In our society, it has resulted in an ever increasing effort on the part of most people to win, to get to the top, to become leaders, to be satisfied with nothing less than perfection. In the absence of any clearly defined objective indicators of our progress along this road to educational, professional, or moral perfection, we use various extraneous rewards to signify the achievements of partial goals along the way. These take the form of school grades, honors, degrees, diplomas, badges and trophies in infinite variety. These are not valuable in themselves but symbolize the attainment of desirable goals. It is so easy to come to mistake the symbol for the thing symbolized. When this occurs the symbol becomes the goal as an end in itself. Thus there is the tendency for grades and diplomas to come to be the chief goals of education. Fierce competition for grades as such may divert the student from the basic purposes of education. The athlete may come to consider the score and the trophy as the desirable ends of participation in athletics rather than physical development, social training, and a liking for a healthful form of recreation.

The fact is that *not* everyone can be President, there is *not* always room at the top, not everyone can win every race. Very few of us can be champions. A minimizing of competition in school work, athletics, as well as social and professional life, should make it possible for education to be concerned with the development of useful tools for living, worthwhile leisure time activities, and desirable social habits instead of passing "good" examinations, getting "high" grades, and acquiring a string of academic degrees as trophies of battle.

In athletics the desirable thing may be to learn to play the game for the sheer joy of the game itself, for the wholesome pleasure and richer personal contacts through the years which it makes possible.

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Social life may be developed so as to make it possible for the person to enjoy simple hobbies, friendly conversations, joyful neighborliness, instead of regarding one's collection as a means of outdoing someone else, and conversation as a duel for superiority between the participants, and social life in general as a means of "keeping up with the Joneses." ¹⁸

NOTES ON THE CHAPTER

1. For a complete discussion of this topic see William McDougall, *Body and Mind*, 8th ed. (London: Methuen and Company), 1938.

2. This general topic is treated more fully in Harold Saxe Tuttle, *How Motives Are Educated* (Ann Arbor: Edwards Brothers, Inc., 1941).

3. Paul Thomas Young, *The Motivation of Behavior* (New York: John Wiley and Sons, 1936).

4. The writer derives this classification with slight modifications from A. H. Maslow, "A Theory of Human Motivation," *Psychological Review*, L (1943), 370-396. The following discussion has borrowed heavily from the above article.

5. W. B. Cannon, *Wisdom of the Body* (New York: W. W. Norton and Company, 1932).

6. P. T. Young, *op. cit.*, "The Experimental Analysis of Appetite."

7. See W. B. Cannon, *op. cit.*

8. Most of the following facts are summarized in P. T. Young, *op. cit.*, "The Experimental Analysis of Appetite."

9. P. T. Young, *op. cit.*, p. 63-65; and J. Warkentin, L. Warkentin, and A. C. Ivy, "The Effects of Experimental Thyroid Abnormalities on Appetite," *American Journal of Physiology*, CXXXIX (1943), 139-145.

10. M. McQueen-Williams, "Maternal Behavior in Male Rats," *Science*, LXXXII (1935), 67-68.

11. For further discussion of the endocrine glands see the following chapter on "The Education of the Emotions," by J. V. Breitwieser.

12. Joseph Jastrow, *Keeping Mentally Fit* (New York: Greenberg, 1928), pp. 128-129.

13. Bruno Bettelheim, "Individual and Mass Behavior in Extreme Situations," *Journal of Abnormal and Social Psychology*, XXXVIII (1943), 417-452.

14. See Robert A. Davis, *Psychology of Learning* (New York: McGraw-Hill Book Company, 1935), pp. 309-311.

15. P. J. Greenberg, "Competition in Children, an Experimental Study," *American Journal of Psychology*, XLIV (1932), 221-248.

16. W. Moede, "Experimentelle Massenpsychologie," (1920), 133-136, as reported in Gardner Murphy and Lois B. Murphy, *Experimental Social Psychology* (New York: Harper and Brothers, 1931), pp. 451-452.

17. A. M. Johanson, "Influence of Incentive and Punishment on Reaction-time," *Archives of Psychology*, 1922, no. 54.

18. This is treated more fully in D. B. Klein, *Mental Hygiene* (New York: Henry Holt and Company, 1944), pp. 431-473.

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CHAPTER IX

THE EDUCATION OF THE EMOTIONS

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Textbooks in general psychology and in educational psychology were until recently content to offer an academic discussion of those aspects of our life which we call the "affective," and which involve the feelings and emotions. It was customary to present theories and descriptions, together with a summary of known and presumed physiological conditions peculiar to emotional experience. There had, of course, been a long history of study in the field of the abnormal, and psychiatry had recognized the pathological function of the emotions in the neuroses and psychoses. General and educational psychologists had good reason, no doubt, for leaving the manifestly abnormal to the experts in psychiatry. But it is strange that they so long failed to take a cue from psychiatry and give more attention to the function of the emotions in behavior.

Mental Hygiene

What was needed especially was a whole new approach covering the behavioral problems of everyday life. What should have been evident from the start is the existence of a wide range of behavior phenomena in which the emotions are involved, but where the more profound personality disturbances have not appeared. Here is an area covering the experience of all of us in some degree, for it

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deals in fact with every phase of our lives in which we fail habitually to make a happy or satisfactory adjustment because of an emotional inadequacy.

It is clear that such occasions are extremely various in kind and degree. They range from minor fears to acute phobias; from trifling inhibitions to serious frustrations; from lesser confusions and upsets to persistent emotional instabilities. These familiar characteristics often amount to no more than a private inconvenience; but too often they project into human relationships, bringing marital trouble, family disharmony, social maladjustment, occupational failure, and behavior problems of children in the home, community, and school.

Mental hygiene is that branch of psychology which is concerned with these aspects of our life. Closely related to psychiatry, and influenced in certain respects by psychoanalysis, mental hygiene turns to the more immediate problems of the personality. It of necessity deals with problems of readjustment, but in doing so it is inevitably drawn into the determination of causes. If a person is to be treated for excessive shyness, for example, it is necessary to find out how he got that way. This study of causes leads into the individual's background of experience, where it is usually found that environmental conditions and episodes of childhood are at the base of the trouble.

With an increasing knowledge of the causes of personality disturbance, mental hygiene has given chief attention to preventive measures. Plainly, these measures must apply largely within the ages of school children. Here we are able to see and deal with the beginnings of emotional disturbance. The wise teacher is able to catch the incipient signs and often to initiate suitable adjustments in the child's life. Specially trained social workers and clinicians are able to apply carefully designed corrective measures, even to the extent of repairing unhappy home conditions. Thus many cases that might at length become profound neuroses are readjusted in time to assure a normal life. This whole development of mental hygiene for children indicates a new and important responsibility of the class-

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room teacher. Textbooks in educational psychology are at last recognizing the fact.

Incidentally, it may be pointed out that our knowledge of mental hygiene has revised our whole attitude toward "discipline." It has relegated to a deserved limbo the naive notion that if children are not good it is because they are "bad." In place of antique ideas of evil and sin it has substituted a humane and reasonable understanding of the emotions. It has given us a sensible view of punishment and a sane approach to correction.

General Importance of Feelings and Emotions

The foregoing statement concerning mental hygiene and its place in education is presented as a special field in which the emotions play a central role. In the following sections of the chapter the feelings and the emotions, and their place in education, will be dealt with in a more general way. Their function in the whole behavior will be discussed. Attention will also be given to the physiological aspects of the subject. In particular, the familiar aspects of emotional behavior as they are seen in the classroom will be pointed out, together with suggestions for the teacher.

The chief regulating force in life arises from the feelings and emotions. Satisfactions, annoyances, desires, motives, personality, appreciations, and character are all outcomes of emotional situations. Educators are often so engrossed in subject-matter achievement and in institutional facilities that the children's feelings and emotions are neglected.

The emotions play a more important role in life than an accumulation of facts or the possession of clever skills. Success depends to such a large degree on attitudes that the development of a well balanced emotional life is just as essential to good living as the acquisition of information and skills. The emotional or affective concomitant makes concentration on a certain type of activity easy as in the case of interest; or may lead to a counter reaction as when a student becomes mischievous in the classroom because of boredom.

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Nature of Feelings and Emotions

Feelings and emotions are strictly subjective, individual, personal, intimate experiences. Feelings always accompany, or are a part of, conscious life. Because the feelings are such an intimate, integral part of consciousness they must always be considered as a part of, or occurring in, the present rather than in the past or in the future. Thus an individual may remember how he felt about some past situation, but the present feeling, or emotional state, may be far different in quality and intensity.

In order to understand the educational significance of the emotions and their development, certain criteria that distinguish emotional from non-emotional experiences should be pointed out:

1.) An emotional situation is one that brings about a sense of disturbance, conflict, mal-adjustment, or tension in behavior.

2.) The emotion in its psychological aspect is a complex, integrated, internal sensory experience arising from the widespread characteristic bodily changes in action of muscles, glands, and the involvement of the autonomic nervous system reflexes that arise out of or along with behavior mal-adjustment.

3.) In every emotional state there is a drive toward some kind of an adjustment, such as satisfaction, destruction, escape, or gratification. The emotion will subside in proportion to the extent to which adjustments can be made.

Relation of Feeling to Emotion

All experiences are accompanied by feeling or an affective process. The most elemental of these feelings are usually described as pleasant or unpleasant. The affective processes become the basis for our likes and dislikes, our desires and aversions. Every feeling represents, even if it be in a mild way, an adjustment situation. The pleasant feeling represents an adequacy of the particular experience; physiologically there is a reaction of muscle, flow of saliva etc., with an implication or craving for satisfaction by a

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desire for the continuation, repetition, or intensification of the same experience. The unpleasant feeling, on the other hand, is marked by tensions, antagonistic movements, and avoidance activities. Since feelings and emotions have the same qualities, the chief distinction seems to be a matter of intensity. An emotion can be said to be an intensified, specialized feeling. The point where a feeling becomes an emotion, or an emotion becomes a passion, can not be clearly defined.

In general, however, a feeling is vague and general, and does not elicit a particular identifiable reaction pattern toward the stimulus. When the feeling is intense enough to arouse a specific reaction pattern it is usually called an emotion; as in fear, the reaction pattern is to escape; in anger to forcefully overcome; in love to draw closer, etc.

The fundamental contrast of pleasantness and unpleasantness characterizes all effective processes, from the mildest feeling state to the most intense passion.

Types of Affective Processes

The conditions under which certain affective processes are aroused enables us to classify them for convenience in discussing their educational implications, though such classifications are necessarily rather general.

Sensory feelings. The feeling of pleasantness and unpleasantness in varying degrees accompanies every sensory experience. We react pleasantly or unpleasantly to pressures, temperatures, odors, tastes, sounds, and colors. In general, pleasantness and unpleasantness are the result of the stimuli on the organism. Well-being becomes associated with pleasantness and ill-being results in unpleasant associations. In a more complicated way our training and experiences lead to sensory feelings in relation to art and music. These more complicated or refined feelings are the basis of esthetic appreciations or esthetic emotions.

Organic feelings. This group of feelings is associated with the organic processes. Their pleasantness and unpleasantness usually are designated by such terms as desire and aversion, comfort and discomfort, well and ill. Organic

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feelings are implied when we speak of hunger, thirst, illness, and exhaustion. The role of the organic feelings is the guidance to physical welfare, or the facilitation of health and physical efficiency.

Interest. Interest may be defined as the feeling that makes attention easy, or pleasing. Interest is the motivating force in most educational processes. Aversion is commonly recognized as the opposite or antonym of interest, although in school situations the term indifference more nearly represents the antithesis of interest.

Sentiment, mood, temperament. When we speak of a *sentiment*, we mean a more or less permanent, particular emotional attitude. Religious attitudes, political loyalties, racial prejudices, patriotism, are examples of fixed emotional attitudes in particular situations. A *mood* is a universal, temporary emotional attitude. A teacher may, as the result of fatigue, be in a bad humor or in a mood of irritability; on the other hand excellent health, favorable climatic conditions, and youthfulness may result in that euphoria that radiates a most delightful mood. The term *temperament* is applied to universal, permanent emotional states. It characterizes the emotional aspect of a personality as a whole. The ancient classification of temperaments was fourfold: sanguine, choleric, phlegmatic, and melancholic. The temperaments were ascribed to an excess of the four great "humors" of the body of early physiology, viz: blood, bile, phlegm and spleen, respectively. It is significant that this ancient classification suggests a general physical background as the basis for temperament. There is a foreshadowing here of our present-day understanding. Today, of course, we see the physiology of temperament quite differently. Furthermore, we recognize that temperament has too many phases to be readily classified.

Maladjustment and Adjustment

In the education of the emotions the fundamental objective is that of a well balanced, adjusted individual. As nearly as possible school conditions should be such as to make a child efficient, happy, and satisfied, not in a

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negative sense but in a positive, well directed, controlled, socially efficient, properly integrated sense.

The schoolroom. The classroom becomes the child's home for several hours of the day. Over-formalized arrangements of seats, barren walls, and cluttered desks can cause many a heartache. Charles Dickens described the dreary schoolrooms suggesting that the emotional life of the child can be warped and dwarfed by the sordid environment in which he is forced to suffer.

Light, pictures, movable tables and desks, comfortable seats and chairs can go a long way in cheering the eager boy and girl on the royal road of learning.

The teacher. Too much can not be said in regard to the importance of the personality of the teacher. Understanding, cheerfulness, neatness, and enthusiasm are all qualities to which all pupils are highly responsive. Clashes of personality, excessive irritability, impatience, sarcasm, and uncontrolled temper are qualities that cause children to "go sour" and often wreck the emotional life of the student.

Books and supplies. No worker can succeed without the proper tools. Attractive books, properly adjusted desks, pencils, paper, pictures, and charts all play an important role in interesting the child, resulting in holding his attention. A sense of frustration often results because the proper equipment is not available to do assigned tasks. Our publishers and school supply houses are making many fine teaching materials available. The resourceful teacher will make use of these stimulating devices, to protect the feelings of those who work with her.

Work difficulty. Many emotional upsets on the part of students are the result of work being too difficult, or the sense of excessive or obscure demands. Such situations develop anger, dread, fear, and a sense of frustration. Sorenson says, "More children become maladjusted because they cannot do the work than from any other cause." The effect of constant failure is emotional disaster, causing anti-social behavior and a distortion of the personality. This is true of all levels of the educative process in the grades, in the high school, and in college.²

On the other hand if the work is too easy, careless habits

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are formed, a cynical, indifferent mood develops, and a life of boredom is broken by mischief and even outbursts of anger. It becomes obvious that the difficulty of tasks should be carefully adjusted to the capacities and backgrounds of the respective pupils.

Integration of Emotional States

Healthy mindedness implies a balanced integration of emotional experience. Some signs of partial disintegration are exhibited in complexes, split personalities, conflicts, repressions, rationalization, fantasies, compensation, worry, and anxieties.

A *complex* consists of a group of related experiences split off from the totality or the rest of our experiences, and organized about a strong or abnormal emotional core. A complex can be the source of strength as in the case of the specialist, or it can be detrimental as in the case of special fears or phobias. Complexes in regard to self evaluation are often encountered leading to an excessive sense of superiority or inferiority. Whenever a complex is so intense and is so insulated from the totality of experience as to become harmful, a reeducation process is indicated. This reeducation consists in seeking the cause or source of the complex, meeting the milder elements of the complex in terms of understanding, facing reality, finally dissolving the boundaries of the complex by interpreting the situation in terms of the totality of experience instead of highly emotionalized factors. The evaluation of all situations in the light of a wide range of experiences is implied in the term broadmindedness. Such a reeducation process, whether undertaken by the individual himself or directed by a teacher or psychiatrist, is the essence of psychoanalysis.

A special form of the complex is the *phobia*. A phobia is a persistent, abnormal fear of a specific object or situation. Its persistence indicates that there is an inability to make adjustments to the original fear inducing situation. When the adjustment can be made through an analysis of its cause or other psychological means, the phobia disappears.

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Another form of emotional upset is the *conflict*. The teachings of parents may seem to be at variance with the precepts of the school. Deep religious convictions may seem to run counter to the teaching of science. Social practices and approvals often seem to be opposed to moral codes. When these conflicts become too intense they develop into a sense of uncertainty and insecurity that leads to much suffering. A friendly environment, tolerance, and a relative sense of social values can go far in avoiding extreme conflicts. One should make decisions promptly and as efficiently as possible. If one is on the alert for points of agreement and likeness rather than accentuating differences, many conflicts will disappear. Actually, there should be some sense of conflict in everyone, some sense of maladjustment, for it takes this to induce effort and to achieve progress. Such is the "divine discontent" of which we hear.

A form of conflict resulting in serious disintegration is represented in dual or *multiple personalities*. The old dualistic concept often contributed to these splits. Thus people refer to their good and evil selves, the higher and the lower self, the flesh and the spirit, as if they were divided or pitted against each other. This allows the criminally inclined an escape mechanism in which a phase or group of their activities is considered as separate or apart from other phases of their life.

Robert Louis Stevenson in his strange case of Dr. *Jekyll and Mr. Hyde* presents a fictionalized, exaggerated illustration of a dual personality. While extreme cases of divided personalities are rare, yet temporary or partially split personalities may result in grave conflicts and contradictory behavior. It is well to remember that our educational effort will develop stronger personalities if we emphasize the unity of experience. There is the need to keep all phases of life in the proper balance in relation to all other phases of conduct.

Another form of emotional compensation is *rationalization*, of finding excuses for failures or maladjustments. A very common form of rationalization is the projection

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excuse which consists in blaming some one else. The pupil blames the teacher, the parent blames the school, the high school teacher blames the grade teacher, the college instructor blames the high school teacher. Too often projection is merely an attempt to shift the sense of responsibility. The "sour grapes" or "it doesn't mean anything anyhow" attitude is another form of rationalization. Such an attitude leads to indifference and lack of effort. It can lead to the acceptance of disaster without an effort at reconstruction.

In its more subtle forms a type of rationalization consists in assigning responsibility to a system or organization, or to a rigid interpretation of rules, rather than considering the merits of individual cases. Many a teacher might well ask a question about the wisdom of giving grades according to the normal curve of distribution. Must we always have three per cent of academic martyrs so the rest of the group can receive higher grades?

Another emotional effort often encountered is *compensation*, or the attempt to find a substitute for a weakness or inadequacy. If a person is deficient in one respect he tries to compensate for, or overcome, that weakness through another activity. Thus the child who has little power as a social leader tries to compensate for the failure by becoming a "book-worm." The undersized boy becomes a "fighting cock"; the socially inadequate individual becomes crudely arrogant. Bluffing, boasting, bullying, haughtiness, dictatorial attitudes are usually indications of weaknesses rather than of strength.

Worry and *anxiety* have been called the diseases of the age. They represent an emotionalized sense of inadequacy in meeting situations. Too often there is worry about what has passed which can not be helped, or a pessimistic anxiety about the future.

Perhaps the best cure for worry is to do something, to act in the living present, let bygones be bygones and let the future take care of itself. Corroding care, fear, excessive suspense are all emotional maladjustments that are expressed through glands and muscles which if carried to excess result in illness.

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Physical Aspects of the Emotions

In the James-Lange theory of emotions emphasis was placed on the physical aspects. Laughter, rage, grief, and fear all have their characteristic bodily and facial aspects. These characteristics are apparent when the emotions are intense. This point of view is clearly stated by James in the following quotation:

My theory . . . is that the bodily changes follow directly the perception of the existing fact, and that our feeling of the same changes as they occur in the emotion. Common-sense says, we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike. The hypothesis here to be defended says that this order of sequence is incorrect, that the one mental state is not immediately induced by the other, that the bodily manifestations must first be interposed between, and that the more rational statement is that we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike or tremble, because we are sorry, angry or fearful, as the case may be. Without the bodily states following on the perception, the latter would be purely cognitive in form, pale, colorless, destitute of emotional warmth. We might then see the bear, and judge it best to run, but we should not actually *feel* afraid or angry. ³

James further emphasizes the physical aspects of the emotions by insisting that if the physical aspects were taken away the emotion as such would disappear.

If we fancy some strong emotion, and then try to abstract from our consciousness of it all the feelings of its bodily symptoms, we find we have nothing left behind, no "mind-stuff" out of which the emotions can be constituted, and that a cold and mental state of intellectual perception is all that remains. ⁴

After the importance of the bodily changes in behavior in relation to the emotions had been established by psychologists, there soon was added the involvement of the autonomic nervous system and that of the ductless or endocrine glands. While the relation of some of these glands to emo-

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tional states can not be established, yet the important ones are presented herewith.

The endocrine glands seem to be a complex, interdependent system whose general function is that of maintaining certain chemical balances that determine growth, metabolism, energy output, etc. The whole body works together, again bringing out the idea that life is a unified, integrated, connected series of experiences in adjustments to an ever changing environment, and that the feelings and emotions are one phase of this adjustment.

The chief endocrine glands are the pituitary, pineal, thymus, thyroid, parathyroids, islands of Langerhans, adrenal, and sex glands (testes and ovaries).

The pituitary gland is located in the base of the cranial cavity. It is closely related to growth. *Dwarfism* and *giantism* indicate underactive and overactive pituitary activity respectively. No clear relation to emotional states is indicated.

The pineal is located just above the bulb in the interior of the brain. It is thought to be connected with growth and sexual development.

The thymus gland is located below the thyroid and tends to become smaller with the onset of pubescence. It has been thought that its persistence in over activity tends to cause the continuing of childish characteristics. It apparently has a control effect on maturation.

The thyroid gland is located in the front of the neck just below the pharynx. It secretes a hormone, thyroxin, a little over half of which is iodine. An inadequate supply of thyroxin produces the feeble-minded *cretin* with a large face and body, and short legs and arms. In the case of adults this hypo-thyroidism or inadequate thyroxin supply tends to produce stolidity, sluggishness, and the unresponsiveness characteristic of the disease *myxedema*.

The opposite of hypo-thyroidism, hyper-thyroidism or an excess activity of the thyroid gland, tends to produce an excess of energy. The hyperthyroid person is tense, high-strung, easily upset emotionally. Rest and tranquil living tend to alleviate this condition, and in extreme cases surgical attention is indicated.

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The *islands of Langerhans* are a part of the pancreas and their secretion, insulin, is associated with the metabolism of blood sugar. Inadequate insulin supply causes a pathological condition known as *diabetes*. The relation of insulin to emotional states is not very close, although at times some reference is made to the impulsive characteristics of a diabetic personality.

The *adrenals* are located on top of the kidney and secrete *adrenalin*. Adrenalin is an energizing hormone the secretion of which is greatly increased during periods of strong emotional stress, especially in the case of anger and fear. The energy produced through the stimulating effect of adrenalin on the sugar release of the liver results in increased heart action. Blood clotting in open wounds is also speeded up. Apparently adrenalin plays an important role as a part of the protective mechanism set up in the body when it is in critical and dangerous situations.

The sex glands, testes in the male and ovaries in the female, become active at the age of pubescence in the form of both internal and external secretions. Their internal or endocrine function is closely bound up with the emotional characteristics of adolescence. The development of the masculine and feminine characteristics are obvious, usually occurring about eighteen months to two years earlier in girls than in boys.

So pronounced are the transition behavior patterns of children to adulthood that the period from the twelfth to the eighteenth years has received special attention in adolescent psychologies. The curriculum procedures and guidance problems of the adolescent call for highly specialized organization of education in the secondary schools. In addition to the physical changes during adolescence, the maturation of the sex functions, there also are many social and vocational adjustments that must be made. The adolescent period is one of intense emotional stresses and strains.

In recognizing the functions of the endocrine glands in the feelings and emotions, we must of course remember that the whole organism is actually involved. Digestion,

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circulation, respiration, and muscle tone all become a part of the emotional picture at any given time.

Teaching and school conditions should be developed as much from the emotional influence they wield as from the facts and skills that will be developed. An emotionally balanced, integrated, normal personality is probably more important than a mass of facts and skills.

Developmental Analysis

Up to this point the discussions have presented the nature of the feelings and emotional states. A genetic developmental analysis may also serve to clarify the role of the emotions in the educational development of human life.

Anger, like all of the emotions, is a complex of varying degrees of intensity. In its milder form it may be called annoyance, aversion, irritation, resentment, or it may be so intense as to be a consuming rage with impulses to tear and destroy. Anger is also involved in jealousy, fear, and even in forms of grief. In general, anger arises when the reactions of an individual are thwarted, or are inadequate to meet the situation.

During the earlier years anger usually arises through an interference with bodily movements, physical discomforts, and immediate desires. As a child grows older anger arises from the interference with, or the thwarting of, more complex forms of behavior.

The show of anger always indicates a sense of inadequacy in meeting a situation. Anger tantrums on the part of children are often developed as a means of obtaining their selfish ends. Sometimes signs of anger are used deliberately as a form of bluff, or an attempt at intimidation. Irascible adults have cultivated these childish traits, or retained them from childhood, and their signs of anger are definite admissions of weaknesses and inadequacies.

For the above reasons the greater the discrepancy between a person's power of adaptation and the situations he has to meet, or between his competence and his expectations, the more intense and frequent will be the signs of

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anger. Skill, competency, intelligence and the power of adaptation all contribute to poise and control.

Since fatigue, lack of sleep, and hunger reduce the power of adjustment, they tend to induce irritability and anger on the part of children and even adults. There is also the cumulative effect of restraints or thwartings that cause outbreaks of anger. A single prohibition may be accepted, but when there is a hasty succession of negations, even an ordinarily good child may "blow up." The irritation and resentment a child often feels in the classroom may be the result of cumulative thwartings or criticism that from his point of view come as the result of conflicting or inconsistent demands, failure in repetitious drills, in needless restraints in conduct, or too much nagging. Frequently these irritations radiate or spread into other activities. Thus the resentment started in the classroom may be carried over to the playground or even to inanimate objects, such as impatience with a tightly knotted shoestring. Most acts of vandalism are the result of people "faking it out" on something or someone else.

It is these widespread expressions of anger that make it an important problem in the home, school, and community. Disobedience, resistance, and destructiveness are expressions of anger. Resentment is also often expressed by pouting, taunts, gossip, ridicule, name-calling, or in active forms of misconduct such as whispering, noise making, truancy, delinquency, and even crimes of revenge. The nursing of anger may develop vindictive plans to bring discomfort, or even disaster to the one assumed to be the source of irritation.

For the most part, anger is a futile dissipation of energy. It at times may serve to jolt a person out of a state of indifference. A kind of righteous indignation can serve as a drive to constructive behavior. Occasionally it may lead those against whom it is directed to examine themselves with a view toward developing better practices. As a motive to be stirred in the pupil by the teacher, it would certainly have to be reserved for rare instances.

The foregoing presentation of the nature of anger suggests certain methods of dealing with children and adults

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in order to avoid needless irritations. In general, a positive rather than a negative attitude by all those who are in authority is indicated. Proper conduct results from the facilitation or redirection of the flow of energy into wholesome and constructive channels, rather than from inhibiting or thwarting the angered or excited person. If parents and teachers would spend more time in showing what to do than what not to do, there would be fewer behavior problems. This attitude would result in the reduction of unnecessary restraints, needless tasks, and inconsistent demands which so often provoke anger.

Another means of combating anger is to build up pride in self control. The understanding of others often removes the obstacles that provoke anger. Encouragement rather than sarcasm, occasional praise rather than constant blame, helpfulness and partial concessions all contribute to self control. Teachers, parents, and those in authority should be able to be firm without giving way to signs of anger and rage.

The conscious, positive building up of strength, skill, and confidence in situations that have caused maladjustments can do much to make troubled waters run more smoothly. Often a word to other students will help iron out social maladjustments. The explanation of assignments that have been misunderstood, the pointing out of difficulties that are likely to be met, helping to plan an effective work program, the reasonable excusing of requirements that are hard to meet because of unavoidable home conditions or accidents, are only humane qualities but can go far in developing an adjusted, balanced, controlled personality.

Fear, like anger, represents a wide range of maladjustments. In intensity it ranges from a mild sense of apprehension through to paralyzing terror. In fear there is always the desire to avoid or to get away from the exciting cause. It indicates that there is no practical or acceptable way of meeting the situation.

Past experiences, physical conditions, surrounding circumstances, all modify the fear complex. A child may be afraid of a loud noise when alone, yet show no signs of

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fear of the same noise if a trusted friend is holding his hand, yet if this same trusted friend should nervously clutch the child's hand and in awesome suspicion suggest that something might happen, the same noise can cause the child to stagger in fright.

As activities, experiences and interests expand, the number and kind of fears also increase. However, as the power of adjustment through experience increases many of the more childish fears disappear.

Because of the changes wrought through growth and development there are fears more or less common to different age levels. Thus a child may be afraid of the dark, of strangers, of railroad trains, of the teacher, of unfamiliar places and so on. As the child grows older there may be less fear of the immediate physical environment but there may be some complex fears, like the fear of ridicule, the fear of new social situations, the fear of failure, or the fear of ill health.

Prolonged fears are often called *anxieties* and may be so severe as to impair the personality. The highly sensitive, timid child can dwell so long and intensely on imaginary fears that his social life and even his health can become impaired.

While fear is often detrimental and causes much needless suffering, yet it is essential to prudence, caution, judgment and thus safeguards the welfare of the individual. The fear of pain, disapproval, and punishment are elemental and immediate deterrents of harmful acts.

More remote and complicated fears become the bases of caution. The fear of financial losses leads to care in investments, the fear of want to frugality, and the fear of ostracism can lead to tolerance, tact, and friendliness.

Many useless and extreme fears can be overcome by information, by meeting the fear inducing situation in a mild or modified form, and by acquiring skills that will overcome the difficulty.

Humor and laughter are experiences of a pleasant emotional state. The adjustment theory still holds because laughter is the reflex accompaniment of a maladjustment that causes no harm or at least no noticeable harm.

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Various attempts have been made to classify humor based on the nature of the maladjustment. The slap-stick type of comedy usually represents some extreme physical maladjustment, inconsistency, surprise, or the unexpected harmless turn. Clowns distort their clothes, their shapes, and the color of their faces. Their reactions are exaggerated, distorted, and unexpected.

Humor that depends on mental or experiential interpretations uses the same maladjustment element of surprise, exaggeration, and incongruity. The pun, a very elemental type of mental humor, is a simple example of this principle. In the same way logical misfits, novel comparisons, strange figures of speech, odd descriptions evoke a smile and often develop a laugh.

Should the maladjustment cause pain or bring unfavorable results it would cause a feeling of pathos or sympathy. This is the reason humor is often so closely akin to pathos. This adjustment theory also explains the conditions that cause the "chestnut" or often repeated story to fall flat.

Since all of us meet many incongruous situations a sense of humor and laughter can tide us over many rough spots in life. Laughter should be cultivated, not as a simple, silly, shallow habit, but as a wholesome substitute reaction in many cases of maladjustment that would otherwise become the source of embarrassment or anger.⁵

Sadness, sorrow, and grief. In the course of human experience, men, women and children become adjusted to, and dependent upon, each other. In the intimate life of the family and home, these adjustments are very important. Suddenly some incident, accident, or death occurs that removes an individual from the close-knit unit group with the resulting sadness or, if the separation is permanent and deeply felt, grief.

Sorrow is most keenly felt in the separation of those who were close to us, those that we loved, or those with whom we had many ties of affection and adjustment. Time heals sorrow only because as time goes on readjustments take place. It becomes clear then that the way to overcome sorrow is to rehabilitate oneself, making new adjustments. The exaggerated emphasizing or prolonging of the sense

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of maladjustment by keeping an empty chair at the table, or living in the deserted house, tends to prolong the sorrow, and is a futile activity interfering with the progress of normal adjustments. On the other hand, the application of the good advice the loved one may have given, or the grateful use of resources that may have been left, honors those who are absent through the utilization of their gifts in the living present.

Joy and pleasure. The gratification of desires, cravings, and interests leads to a feeling of satisfaction, pleasure, and joy, usually roughly proportionate to the degree of the intensity the maladjustment or desire was felt. Rest is a luxury when one is very tired, food is enjoyed very much if one is hungry and has a good appetite.

Desires and cravings can also be of a higher associational type such as ambitions, the desire for leadership, recognition, esteem, or prestige. The activity that brings about the realization of these cravings is very pleasant and desirable.

Returning to the opening of this chapter, probably the greater drive in man is his desire for pleasure. The great task of education is to create that sublime discontent in the form that forces activity toward the greatest amount of happiness, for the greatest number of people, for the greatest length of time.

The place of the school in relation to the development of the child's emotional life is summarized in the statement of the Educational Policies Commission as follows:

The child in the classroom is a living equation of which not all the emotional factors are known. Knowledge of mental health has advanced far enough, however, so that certain beneficial and certain harmful influences in the school situation can be identified. It is recognized that opportunity for self-expression which permits the development of self-reliance and enables the child to succeed in most of his daily efforts is conducive to good mental health. On the other hand, experiences that are too difficult or too easy of mastery lead to failure, evasion, fears, inferiority or superiority, timidity or overconfidence, and to the unwholesome consequences which accompany each of these. The effects of a clean, attractive and well-regulated environment upon the child's attitudes are too well known to require comment.

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The teacher's influence on the child as given expression in her personal attitudes, teaching methods and discipline can be either wholesome or harmful. Fears or irritability on the part of the teacher are readily transmitted to children. Methods of teaching that unduly emphasize speed tests, grades, promotion and other artificial motivations likewise affect the learning reaction of the child and may even destroy his desire to learn. On the other hand the teacher who is personally well adjusted and versed in child psychology can make the school experience joyous and gratifying to most children. It is the task of the school administrator, through careful selection and supervision of teachers who are emotionally mature and professionally qualified, to encourage the development of good mental health in every child. ⁶

NOTES ON THE CHAPTER

1. See John Dewey, "The Theory of Emotion": (I) "Emotional Attitudes," *Psychological Review*, I (1894), 553-569. (II) "The Significance of Emotions," *Psychological Review*, II (1895), 13-32.
2. Herbert Sorenson, *Psychology in Education* (New York: McGraw-Hill Book Company, 1940), p. 59.
3. William James, *The Principles of Psychology* (New York: Henry Holt and Company, 1904), II, p. 449-450.
4. *Ibid.*, p. 451.
5. Homer Sapiens: "What Is Funny," *School of Education Record*, University of North Dakota, XXII (February, 1937), 157-160.
6. Educational Policies Commission, *Social Services and the Schools* (Washington: National Education Association, 1939), pp. 82-83.

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CHAPTER X

CONCEPTIONS OF LEARNING

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Mind and Learning

Many theories of mind have been proposed through the centuries, each with its own conception of learning. The twentieth century has been a period of especially rapid development in basic concepts. The great extension of public education, with the consequent need for efficiency and economy in the conduct of learning, has made better understanding of its nature a matter of public concern. Now, as the result of a great war, we have discovered that quick and effective learning is essential to military success and national survival.

At the close of the 19th century one conception of mind and learning was on the wane and another was soon to lose favor. Mind as composed of powers or faculties and learning as the process of training them were losing ground. Mind as a blank tablet and learning as the process of writing, upon it with the finger of experience were soon to become a part of the past history of psychology. Mind as some kind of function of the living individual and learning as a major aspect of mental functioning were just ready to emerge, in consequence of the application to mind of the new biological concept of adaptation to environment.

The essential idea in the adaptive conception of learn-

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ing, as it was first formulated by such psychologists as J.R. Angell¹ and C.H. Judd,² is that forward looking connections are established between sensory functioning and motor impulses, or cross connections between central mental activities on the same level, as between cognitive or ideational elements. The laws of association as worked out by philosophers and psychologists since the time of Aristotle were reinterpreted to suit the functional concept of mind and the word "learning" began to replace the older "association." The possible neurological accompaniments of the mental processes received specific attention. "The tendency for a pathway to be established between any two brain centers that are active at the same time" became an important explanatory concept.

The stimulus-response psychology of E. L. Thorndike³ is a more objective, i.e. more peripheral, application of the functional concept of mind. According to his conception of learning the building up of human activity is based upon formation of effective connections between stimuli and responses, and the laws of learning are the laws governing the strengthening of neural connections.

Near the beginning of this century John Dewey had said that the reflex arc concept is association in motor terms. I. P. Pavlov,⁴ working as a physiologist, developed the concept of the conditioned reflex, which is distinguishable from the stimulus-response theory largely because the stimulus and response elements studied are highly specific in contrast with the grosser character of situation and response as described by Thorndike. The nicety of control and the objectivity of the experimental situations used by Pavlov appealed to students of behavior who were seeking a way out of the subjectivity of experimental psychology and the uncertainties engendered by the grosser situations and responses used by Thorndike and his followers. Thus the conditioned response concept of learning was born, and body-functioning was substituted for the concept of any "mind" at all.

All four conceptions of learning—association in its static form, association as adaptive mental function, stimulus-response connectionism, and conditioned-response behavior—

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led to the formulation of so nearly the same laws of learning that, aside from changes in terminology, teaching and learning techniques were relatively unaffected by the controversies raging among psychologists. Education profited largely from empirically determined learning techniques which could be made to fit any one of the theories by shifts in wording.

The fundamental fact, now almost universally accepted by psychologists, that learning, and in fact all behavior occurs in satisfaction of some need of the organism was obscured in all the four conceptions because of the preoccupation of investigators with perfection of mechanical theory. The question of why the perfect machine should run was dismissed as irrelevant and of no concern to the scientific mind. Presumably the answer would eventually be found in the trigger-like action of stimuli followed by the explosive action of energy stored in nerves and muscles; all else was chaining, summation and cross-connecting of associative or S-R elements. Many psychologists who felt the need of a force to drive the mental or behavior machine were, at first, satisfied with instinct or emotion as the *deus-ex-machina*. But instincts, too, were reduced to mechanisms and a better understanding of the modifiability and complexity of the nervous system finally reduced inherited mechanisms to the simple reflex, set off by external stimuli or internal physiological condition. Teachers continued to find the psychologists' treatment of driving forces inadequate and retained the older concept of purpose reinforced by pleasure-pain motives to assist them in directing learning.

When the psychologist had finally succeeded in reducing man to the status of a machine and mind to the status of the connector between other parts of the machine, then learning became the explanation of mechanical alterations in the system of connections. The machine concept did not remain unchallenged by outsiders and soon broke down in the face of evidence coming from the psychologists themselves. The investigations of Max Wertheimer⁷ on the visual perception of motion and of Wolfgang Kohler⁶ on the behavior of apes seemed to require conceptions at

variance with the mind-machine notion. In particular learned "response to relationships" was not explainable by association, S-R bonds, or conditioning. At the same time the neurological investigations of K. S. Lashley⁷ and others were showing that the beautiful simplicity of the nerve pathway theories of learning was not in conformity with fact. Living matter is apparently not the kind of thing which mechanical explanations assume it to be. Life shows strikingly the operation of "dynamic patterns" which are more than the summation of mechanical part activities. Responses are coordinated with respect to an end which is anticipated, whether desired or to be avoided. A man going to work may run to catch a bus, thumb a ride, or walk. Explanation of his actions by mechanical combinations of associations, S-R bonds, or conditioned reflexes seems incomplete and absurdly complicated if not impossible. It is seemingly contradicted by the neurological evidence. The concepts of purpose, need, satisfaction, and dynamic pattern have come to occupy an essential place in the psychology of learning.

The ancient conception of mind as dynamic substance (faculties) is gone; the late 19th century substitute of a lifeless mind structure has proven barren. The effort to substitute body structures for mental structures has failed because purely mechanical explanations of life seem inadequate and hopelessly complicated. The concept of mind as function serving the ends of adaptation to environment has shown fruitfulness. Psychologists seem to have arrived at an objective, monistic conception of human nature which uses the concept of mind to designate that major group of adaptive functions mediated through the nervous system. Change in these functions is learning. Conceptions of learning have changed along with the mind concept but specific statements of laws and principles of learning have survived changes in basic theory. Only recently is the full meaning for learning of the functional idea emerging and breaking the bonds of mechanical explanations of this central psychological phenomenon and educational problem.

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Our next task is that of reviewing and assessing the importance of the more detailed conceptions of learning.

Explanatory Concepts

Learning depends upon activity. There is no impression without expression. Learning occurs by and through responses of the learner made in consequence of stimulating situations both external and internal. There is no dissent from this fundamental conception, although interpretations and emphases vary with theoretical viewpoints.

Any notion that learning is simply a process of absorbing or recording impressions and ideas is contradicted by this principle. On the other hand, the extreme peripheral theory, that each identifiable stimulus has its own separate and identifiable response joined to it by a specific neural bond or pathway, seems equally untenable. It is true that a stimulus that produces no response is not a true stimulus at all, while a response without a cause is contrary to all scientific thought. However, many a stimulus produces its effect by merger of nerve impulses in already functioning response patterns, acting to strengthen, weaken or perhaps divert them slightly in a manner often wholly unrecognizable by known techniques. The fact that, through the almost infinitely complex central nervous system, any point of stimulation may be the origin for nerve impulses transmitted to any or all motor organs makes exact tracing of connections impossible, at the same time that it permits infinite variety to learned situation-responses.

It is the acting person who learns. The amount, kind, and rate of learning depend upon the amount, kind, and intensity of activity. It is intensive activity that educates quickly; it is the kind of activity that determines what is learned; it is the amount of activity that determines, within limits, how much is learned or how high a level of learning is attained. Learning of some kind is life-long since activity is life-long.

The concept of use or frequency. How can the gradual increase in strength of habit, effectiveness of skill, extent of knowledge, depth of understanding, and force of at-

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titude be explained? An important common sense concept which has had a place in almost all psychological theories of learning is that use of a response, that is, repetition of functioning of an association, S-R bond, or conditioning situation tends, other things being equal, to strengthen and fixate the learned activity. This concept has been subjected to close scrutiny and hedged about by several qualifying and restrictive statements. (1) Repetition of an S-R bond, in and of itself, probably has little if any value in strengthening the bond. (2) Repetition of a persistent error (response) with intent to overcome it, is effective in eliminating the error (response). (3) Use of a conditioned response, without reinforcement, extinguishes the response. (4) When response to a frequently recurring stimulus is meaningless or useless it gradually disappears (negative adaptation). (5) Use probably has the same relationship to learning that time does to growth; under favorable conditions it gives opportunity for learning but does not cause it in any case.

In a literal sense exact repetition of stimulus or response is impossible. Situation and response may be repeated in roughly equivalent form when judged with respect to the goal of the performance. Learning actually means in most, if not all, human pursuits progressive variation of response leading to more and more effective achievement of the goal. Fixation shows up late in the learning process and is approximate but never exact and final.

The reasonable conclusion about use or frequency seems to be that one trial at a goal does not ordinarily lead to complete learning of effective behavior, but that repeated trials with varied situations and responses are needed for high level learning. Each trial has value in promoting learning only to the extent that the true causes of improvement are present. The true causal factors must be sought out if learning is to be more fully understood.

Intensity. Alert, curious, wide-awake, vigorous activity is favorable to learning. This is a condition of the whole organism characterized by a high state of tension, a definite imbalance of forces. It is quite different from mere intensity of physiological stimulus or strength of muscular

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contraction. It means that all the forces of the organism are being let loose. This condition occurs in states of emotional stress but also when hard at work at an interesting task. Learning then goes on rapidly. This ancient principle of association is still a valuable concept in all modern learning theories as well as in every-day learning and teaching.

Relaxation. Comparatively new to the western world, this principle asserts that there are latent creative forces which function best when freed from pressures of alert mental functioning. They favor quiet integration and reorganization of all that one has experienced. They are inhibited by the dominating forces of sensory stimulation. Under deep relaxation thinking is controlled by motives with less immediate relation to tasks set by the immediate environment. Creative reconstruction of experience is a kind of mental functioning which works best when the organism is at ease. Dreams, day-dreams, fantasy, hypnotic and trancelike states will have a legitimate place in learning when we discover how to use them wisely.

Reinforcement. This principle has been stated in various forms; it is a corollary of the idea that use alone is ineffective. Some agents must be present during practice to account for its effectiveness in changing behavior. The old pleasure-pain principle is an early statement of reinforcement—pleasant experiences are remembered, unpleasant ones forgotten. Thorndike tried to make the pleasure-pain principle objective in his law of effect, stating that when modifiable connections between stimulus and response are used the connections are strengthened if the response is accompanied or followed by a satisfying state of affairs and weakened if the response is accompanied or followed by an annoying state of affairs. Satisfying and annoying states of affairs have been better illustrated than defined—satisfiers are food when hungry, rest when fatigued, warmth when cold, removal of pain, praise, etc. Annoyers are deprivation of food, pain, electric shocks, reprimands, etc. Satisfiers seem to be true reinforcing agents although their manner of working is the subject of much controversy. Annoyers are not specific in their action, they favor variability of response — “doing something else next time” — and at

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times they generally inhibit action, causing unwillingness to try anything, or they lead to efforts to escape from the learning situation entirely.

Sometimes the reinforcing agent is not to be found in a rewarding effect, but rather in the confirmation of an expectancy. Through previous learning in the same or similar situations the learner has discovered that a response will avoid an annoyer or will ultimately lead to a satisfier. An expectancy is thus a secondary or learned motive. As long as expected consequences materialize the learner continues with his course of activity. The situation has meaning to the learner based on his previous experience in it or in a similar situation. This is similar to the "principle of meaningfulness" long stated by writers on educational method. It is not clear, however, how this expectancy principle leads to specific conduct. It explains avoidance better than it does success. If expected consequences do not materialize only new expectancies are learned, the "right" behavior must depend upon previous learning or on inheritance. This principle does, however, stress the perception of relationships in the whole act, and the significance of the goal in relation to expectations of it. It may be used to explain why continued good performances of a complex character leading to remote goals are not "extinguished" by repetition as they would be if not reinforced.

Reinforcement by substitution is a concept growing out of conditioned reflex investigations but familiar to every teacher as a common school practice. A second stimulus, present at the time that an original stimulus evokes a response, will tend on later occasions to evoke that response. The original teaching of reading vocabulary, number combinations, factual information, etc. may be said to follow this principle. For example, in beginning reading the oral (auditory) presentation of a word by the teacher evokes pronunciation by the pupil; the visual presentation, as a second stimulus, becomes the conditioned stimulus for pupil pronunciation. On the sole basis of reinforcement by substitution this conditioned response (reading) ought to be extinguished by continued reading in the absence of further auditory presentation. The use of reading in schools

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would therefore destroy, instead of fixate, reading vocabulary unless other reinforcing agents were present.

An example of reinforcement in a school situation may clarify meanings for teachers. For example, in beginning reading, the stimulus word "man" is presented by teacher pronunciation (auditory stimulus) and visually in print or script. The child responds by saying "man." This is reinforcement by substitution. The teacher follows up by saying "right" (used here to typify teacher approval). This is reinforcement by effect. In case of error the teacher says "wrong," which in itself teaches nothing but does lead to varied response on the next trial—if the danger of inhibiting further trial is avoided. Later practice, when the pupil is working alone, omits the initial reinforcement by substitution but continues the use of effect in some form, and also uses reinforcement by expectation since eventually rewards are attained and annoyances are avoided. Without either reinforcement by effect or by expectation the reading habit would be extinguished through non-reinforced repetition.

Insight. In many cases human beings seem able to survey a situation and decide what is important or what needs to be done to get the results that are desired; they pick out the right act at once because they have understanding or insight. On the other hand, association, S-R bond formation, and conditioning all require repetitions as the explanation of learning. These latter theories employ the mechanical concept of elements to be joined, the elements being largely peripheral — stimuli and responses. The central functions of the individual and his nervous system are disregarded except as they provide modifiable connectors, the modifications being made from without by the pressures of stimuli and responses. Emphasis upon the dynamic living individual functioning in such a way that he organizes situations and selects responses to suit his ends is not found in peripheral (mechanical) theories of learning but it is the essence of the insight concept.

Several criteria of insight have been proposed. (1) Understanding precedes successful action, which (latter) does not occur by chance. (2) Insight provides for the use of relevant part perceptions and responses as determined

by the entire situation. (3) At the level of overt behavior a complete solution to the situation appears as a unity and is not built up piecemeal. (4) Successful response appears suddenly after repeated failure and continues regularly on subsequent occasions. (5) A principle discovered in one problem situation is transferred to similar problems.

Insight certainly requires continuity of some sort with the past experiences of the learner, otherwise it would have to be regarded as good luck. The learner must have sufficient previous learning appropriate to the novel situation to provide the materials essential to the solution, but the mere possession does not guarantee success. Reorganization of experience involving the discovery of relationships is essential to insight. Any mechanical (peripheral) explanation of insight learning must explain both the original acquisition of the relevant experiences and their reorganization to fit the new situation. This has not yet been done successfully by exponents of conditioning, S-R bond or association theories. The most promising approach is through the phenomena of stimulus generalization and response generalization.

When a response to a stimulus has been learned it can be shown that other similar stimuli will also be effective in bringing about that response and that other similar responses may be called forth by the conditioned stimulus. What is learned in any case is apparently a class of responses to a class of stimuli and not a specific response to a specific stimulus. For example, when a child in school learns to read the word "man" he can read it in a variety of type faces and scripts without specific practice in each and can respond in varying tones aloud or subvocally without specific practice in each response. Both stimulus and response are generalized to some extent. On the other hand, any teacher knows that surprising failures of stimulus and response generalization also occur.

Recognition of the phenomena of generalization must not be allowed to obscure the fundamental fact that the class of stimuli producing a response and the class of responses produced by a stimulus are limited. Discrimination is a fundamental condition of behavior and is also the goal of

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much school learning. Merely repeated reinforcement of a conditioned response does not result in fine discrimination although it does reduce generalization. Finer discriminations occur when the generalized responses are extinguished by non-reinforcement, while reinforcement of the specific conditioned response continues. This is a procedure known as the "method of contrasts." The positive and negative stimuli likewise may be sorted out and presented successively with appropriate reinforcement or lack of reinforcement.

It must be observed, however, that high degrees of insight often require fineness of discrimination. Explanation of insight by conditioning would have to show that separate and finely developed conditioned responses, previously unrelated, could function as though they had in fact originated in the same or similar stimulus-response situations. Apparently the learner himself is sufficient common ground and any of his experiences, however unrelated in origin and apparently dissimilar in nature, may on occasion be joined in an "insight" to provide the solution to a problem.

There is a fundamental difference in the original nature of the human being presupposed by advocates of association (conditioning) and insight theories of learning. The one view admits only a learner equipped with a modifiable nervous system connecting mechanically between sense organs and response organs; the other accepts problem-solving capacity as given. The one tries to show how intelligent behavior is derived from reflexes, the other tries to show how intelligence controls experience and uses reflexes. It is the familiar conflict between mechanical and dynamic concepts of mind.

Genetic Concepts

*Maturation.*⁸ The effects in behavior and learning of similar environmental circumstances vary as the learner matures. Some forms of behavior must wait upon maturation before they appear at all. In many fundamental forms of behavior, development occurs in rather definite and

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orderly sequences with little variation as between individuals, although rate of development is a variable. These are the major facts of maturation.

In general, an individual's ability to learn increases with age, reaches its highest point in the early twenties and declines slowly thereafter. A given kind and amount of training will give greater results as the child matures. There may be some exceptions to this general principle, for example, certain pronunciations in foreign languages may be mastered in childhood better than at maturity. Possibly this exception is a matter of negative transfer, or interference between habits, which occurs at all ages and is not directly due to age differences in learning, or perhaps the adult fails to perfect his pronunciation because he has neither the time nor the inclination to engage in the endless babbling and practicing of language sounds that is so characteristic of early childhood. Another exception to the general principle may be found in the possibly better learning, beyond the point of general maturity, of matters closely related to the adult's chosen vocational or professional field. Possibly familiarity with study procedures in the chosen field, or the ability to use higher level insights, maintains or even increases learning ability as long as general vitality is high. It has been noted that while amount of production in many scientific and professional occupations is highest in the thirties,⁹ quality of production continues to rise and the "masterpiece" is likely to be produced after the age of fifty.¹⁰ Some studies of maturation have seemed to imply that specific training in a given form of behavior ought, in the interests of economy of effort, to be postponed until ability to learn the act is at its highest point. Extensively applied, that conclusion would lead to the waste of most of childhood and the piling up of a tremendous amount of learning in early adult life. The conclusion is further contradicted by the fact that, while learning must wait upon maturation, the effort to learn is an important factor in promoting maturation.

The age of minimum maturation, or readiness, needs to be explored as carefully as the time of maximum maturation. At what time is an individual first able to engage in a

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given act or first able to profit from training in it? Somewhere between the limiting conditions of minimum and maximum readiness is the point at which instruction ought to begin. Other considerations than readiness will partly determine the actual placement of instruction.

Examples of maturation in orderly sequences are plentiful in early childhood. The general cephalo-caudal development of the upright posture follows this gradient: The infant progresses through the sequence of (1) lifting the head when lying prone, (2) lifting head and shoulders, (3) lifting head and chest with support on the elbows, (4) sitting with support, (5) sitting without aid, and (6) standing alone. No one part of the series can occur until the preceding one has matured. Sequences of maturation in school activities are well known to teachers, although many sequences used in teaching are based upon custom and convenience rather than the limiting facts of growth. Oral counting precedes reading numbers, oral addition precedes written addition, addition precedes multiplication, but multiplication does not necessarily precede division. Fractions in simple form are understood and used by kindergarten children although we do not "teach" fractions until about the fifth grade.

Maturation is just as real in social and emotional behavior as in motor and intellectual traits. For example, the size of the effective social group gradually enlarges from 2 members during the second year of life to 5 or 6 at entrance into school. Parallel play precedes organized group play. Ability to participate in organized group activities, or athletic teams and clubs with formal organization, is clearly present at 10 years of age, but ability and interest grow year by year with interest reaching its highest point at 16 or 17.

It is important to note that new growth and learning remake the individual. New developments are not simply additions to the earlier accumulations of maturity, skill, knowledge, and attitudes, but the old things lose their identity in the new.

Present understanding of maturation of children suggests that schools have endeavored to teach abstract con-

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cepts, especially in language, science, history, and human relations too early, but that relatively concrete learning in these areas is possible in the first school years. Schools often assume greater social and emotional maturity than children possess. On the other hand in concrete language and arithmetic, in motor skills, manual arts, rhythm, and small group behavior, children are ready for more advanced learning than the school provides.

Readiness. At any given point of maturity the learner is ready for some activities and unready for others. Any person is "ready" to do or learn anything that lies within the range of his physical, mental, social and other possibilities, granted appropriate stimulating conditions. There are obviously many cases of partial but incomplete readiness based upon partial but incomplete maturity, defective development or lack in environmental situations. It is probably this incomplete readiness in some form that furnishes the basis for Thorndike's notion that being forced to act when unready is annoying. On the other hand when the individual is ready in terms of his own maturity and the environment is partly favorable, but sufficiently defective that action cannot take place, tensions arise that are "annoying" until they can be resolved by withdrawal from the situation or revision of the environment. It must, however, be noted that learning arises in just those cases where the tensions of incomplete readiness can be resolved by activity that promotes maturation of the learner or brings about environmental revisions by the learner.

Schools have customarily "graded" curriculum activities and pupils as a means of ensuring readiness. Difficulties however arise, not merely because of faulty "grading," but even more because a pupil may be "at grade level" in one developmental sequence and above or below it in others. Developmental rates vary, not just among individuals, but also among different aspects of development in the same individual. Schools can provide for readiness more fully by individualizing the curriculum in disregard of grade lines as well as by more careful grade placement of materials.

Rate. By what increments does the learner pass from the beginning to the expert stage in behavior? How much pro-

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gress does he make in each unit of practice time or in each trial?

Rate of learning is often shown by plotting a learning curve, amount of practice being plotted on the x-axis and effectiveness of performance on the y-axis. Selection of a measure of practice and a measure of performance, each of which is applicable throughout the whole range of the learning is theoretically necessary—but not always, perhaps never, possible in practice. Furthermore the selected measures cannot fully represent practice and performance. Absolute conclusions concerning rate of learning must consequently be drawn with extreme caution.

There is no single learning curve which can be called the true curve of learning. Each one found is a function of the conditions under which the particular learning occurs and of the measures used. The three general forms usually reported are (1) negatively accelerated, (2) positively accelerated and (3) the S-curve. Individual curves are never smooth, but show many minor ups and downs of performance and sometimes prolonged plateaux or slumps.

1. The degree of adaptation of the activity and the situation to the maturity and previous training of the learner affects the form of the progress curve. Good adaptation gives rapid initial progress and negatively accelerated curves while poor adaptation gives slow initial progress and positively accelerated curves.

2. Kind and degree of motivation affect rate of rise of learning curves. Lapses in motivation may cause minor irregularities, plateaux or slumps in performance.

3. Physiological condition of the learner produces varied effects on performance and learning. Apparently well-being promotes learning, while fatigue, illness, and some drugs interfere with it; however, the immediate effects upon performance of a given physiological condition are often unpredictable. The progress curve reflects these facts by showing minor irregularities, plateaux and slumps in performance.

4. The form of the learning curve is dependent upon the nature of the activity being learned. Complex skills generally show gradual progress, while simple all-or-none

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choices and learning based on insight may show sudden learning. The learning curve of the complex skill may have either positive or negative acceleration and may or may not show one or more plateaux or slumps. In a complex skill, gradual but radical change of style may cause a plateau while the change is being made.

5. The method of measuring performance has an important effect upon apparent rate of learning. In complex skills, speed measures with light penalty for errors tend to give negatively accelerated curves but with heavy penalty for errors they give positively accelerated curves. Curves based on "percent right" score are negatively accelerated. Often a measure is not applicable until a minimum skill has been attained, or loses its validity at a certain high point of attainment, or cannot be applied with the same meaning at different levels of performance. For example, speed of typing stated as "number of 5-letter words per minute" will vary with penalty for errors, is an inappropriate measure in the early stages of learning to type and changes in meaning as an indicator of skill in relation to the difficulty of actual words being typed.

6. The limiting conditions of human endurance, speed of muscular contraction, fineness of sensory discrimination, and the like make it certain that all learning curves have a ceiling. The approach may be gradual, as in negatively accelerated curves, or the final leveling off may be sudden after a period of positive acceleration. Actually attained limits must be understood as applying only to the particular environmental situation and the methods of performance in use. For example, the world's record for running the 220 yd. high hurdles has been very sharply reduced over a 50 year period by changes in running style; there are indications that a new typewriter keyboard will increase the upper limit of typing speed as well as speed of learning to type.

Reorganization of experience: differentiation and integration. When the individual learns he does not simply acquire new items of information, skill, or attitude to enlarge his previous store but reconstructs his organization of experience.

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The most primitive kind of learning apparently occurs by the development of detail within the framework of a broad general perception or response.¹¹ The infant, for example, probably responds first to the total form of the mother and only slowly comes to recognize features as arms, head, mouth, and eyes. Recognition of quantity and number in the form of more and less precedes counting of individual objects. Gross movement of the body as a whole precedes controlled movement of any body member; control of the arm as a whole precedes controlled movement of any of its parts. The necessity for observing and reacting discriminatively is ever present. Certain features of the gross situation are found to be critical in guiding response and specific organs of the body must be directed toward specific objects or aspects of the situation. It must not be forgotten, however, that the body as a whole continues to furnish an essential supporting base for any specific observation or action; the differentiated detail remains in a general frame of reference.

Swinging a bat at a pitched ball, for example, requires specific perception of the ball, keeping the eye on the ball and a highly differentiated arm action, but all this occurs in relation to a ball field, positions of opposing players, stage of the game, etc., and the specific arm actions are based upon a general body posture which makes them possible. The concept of differentiation recognizes the importance of the whole perceptual field at the same time that it emphasizes the need for discrimination; it recognizes the importance of the body acting as a unit at the same time that the need for specialized response is accepted. From this point of view learning could never be the building up of specific neural connections between stimulus and response, since, in every case, the body as a whole is reacting to the perceptual field as a whole. Learning must inevitably involve reorganization of the whole person.

Integration, as kind of learning, requires the merging or combining of two or more specialized perceptions or actions into a unified pattern. It is a kind of reorganization of experience that occurs when the individual discovers relations among things that were learned separately. As a boy

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one learned to snap a whip to cut off the heads of daisies; as a man he learned to snap the wrists to get added distance in driving a golf ball—then one day the two ideas merged to form a unified understanding. A pupil learns about the blood and its red and white corpuscles, at a later date he studies the amoeba as a unicellular form of life, then one day he sees the relations between blood cells and amoeba. Integration is thus seen to be the unification of experience by the formation and application of generalizations, while differentiation is the enrichment of experience by discriminating and discovering detail. They are complementary concepts. Both processes operate throughout life, differentiation to increase the complexity of mental organization, integration to preserve its unity. Earlier learning theories (association, S-R bond, conditioned reflex) emphasized the function of integration. Thorndike, however, found mere contiguity insufficient to explain how things became related and posited "belongingness" as requisite to S-R bond formation. Now it is seen that relationships owe their existence to the fact that during the differentiation process specific perceptions and actions have preserved their reference to the original matrix from which they came and through it are related to the whole of mind, degree of relationship being determined by the genetic history of the parts concerned.

Control of Learning

The preceding concepts are concerned with what learning is and how and why it happens at all. For the most effective conduct of learning they must be interpreted and applied to individual learners and specific learning situations.

Organization of environmental situations with reference to individuals. Learning is obviously dependent upon the provision of physically adequate equipment and materials judged with respect to the demands of the activity and the abilities of the learner.¹² Water for swimming with temperature and cleanliness to suit the learner, words for reading chosen to suit the spoken vocabulary and mental ma-

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turity of the pupil, laboratory materials in science chosen to suit the interests, manipulative skills, and intellectual abilities of the pupil — these are examples of the organization of situations. For social learning it is the social environment that must be organized. People with whom to compete in play or work, so chosen that the learner has a chance to win, are requirements for learning competitive habits. People with whom to cooperate and circumstances which make cooperative activity profitable are essential in learning cooperation. Each kind of learning—intellectual, emotional, social, motor—grows out of a situation organized to provide for it. Each learner—young, old, intelligent, stupid, normal, defective—has interests, abilities, and needs peculiar to himself which set the requirements of the situation that will influence him to most effective learning.

Certain devices for controlling the stimulating situation may be evaluated for learners as a group,¹³ bearing in mind, however, that there are nevertheless variations in their effectiveness based on peculiarities of individuals. Demonstrations are universally effective. The learner seems to imitate the general pattern of the activity, supplying his own detail. Verbal instructions are effective in calling forth familiar actions in new situations, provided the learner has adequate language development to understand them. Their effectiveness is further limited by the great difficulty found in giving adequate verbal descriptions of any except simple performances. Manual guidance, where applicable, may be effective if the learner assumes a positive, thinking attitude while being guided. It may provide a clear idea of what is to be done and give the learner a "feel" of the act as a whole. Any kind of guidance—demonstration, verbal or manual—may be continued too long for best results. Independent activity by the learner is the prime requirement for learning.

Organization of the learner's activity. It is essential that the learner take an active critical attitude toward the situation, directing his efforts toward the goal of the activity with a minimum of self-analysis and self-concern. The beginner should view the situation and his response as a

whole and let the details fall into place without giving them separate consideration.¹⁴ He should not begin with elaborate formal practice on elements or parts but should work first at units large enough to be meaningful to him in relation to his purposes and of such a character that they will not require special practice to fit them into the whole activity to be learned.¹⁵ The experimentally determined facts are in agreement with the concept of differentiation as a primary way of development. Until the part activities have been developed through work at the whole activity they are not ready for separate practice designed to perfect them and are not ready for efforts to combine, or integrate, them with other parts. Special practice on parts should come late in the learning of a complex skill.

Some examples may make the facts clear. In learning to swim, the learner should begin with the whole body in the water and try to keep afloat by following a good demonstration of a complete swimming stroke. After considerable progress has been made the learner will become aware of the subdivision of the stroke into arm movement, leg action, breathing, etc. Only after a part has been discriminated and has assumed an identity of its own in the learner's mind is it ready for separate practice. In a game such as baseball, there are several meaningful units, each with its own separate course of development: throwing, striking with a club, catching, running, etc. Each unit is a meaningful whole for learning purposes, but all of them must be integrated to form the complete game of baseball. Learning baseball as a "whole" activity before practice on any of its parts would ignore the existence of the previously differentiated part activities and hence be wasteful of effort. In systematic study of American history, often begun at about the 5th grade, the first effort should be to develop the broad general concept of America by integrating existing geographical, political, and social concepts of this country; thereafter the study should enrich the general concept by developing more and more detail within the general framework of "America."

Motivation. The learner's activity must be directed toward desirable ends and maintained at a high enough

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energy level. The most fundamental technique is that of so managing situations that he understands how the new adaptation will promote his major purposes. Since he apparently cannot always achieve this understanding, the situation may be "reduced to his level of insight" by the application of incentives—rewards or punishments in some form.¹⁶ Commonly used devices are: school marks, praise, reprimands, withdrawal of privileges, granting special privileges, honor rolls, prizes, badges, competition, co-operation and many others. Many of these incentives arouse negative or fear reactions, many lead to cheating, and many lead to a distortion of the learner's sense of values so that the more fundamental motives are never fully matured.

Level of aspiration. The maintenance of motivation requires successful activity, but success is determined by the individual's attainment of his own goal. His level of aspiration determines his judgment of success or failure. It is consequently very important that aspiration be commensurate with ability if maximum development and personal satisfaction are to be attained in education. The gifted student may be satisfied with under-achievement, the dull student may feel constantly frustrated because his goals are beyond his abilities. The adjustment of level of aspiration to fit actual ability is often a difficult one to make. Improved guidance practices in school are indicated.

Conditions of practice. The economical use of learning time is required by the fact that there is so much more useful learning than can possibly be accomplished in a lifetime. All known principles of good learning must be applied and in addition special provisions must be made for keeping the learner at a good level of learning efficiency. Fatigue especially must be controlled. Boredom and monotony must be avoided. Health and well-being must be maintained. A specific research finding is that practice periods on routine skills should be comparatively short (10 minutes for young children, 30 minutes for adults) and spaced at not more than two periods daily. Where variety can be introduced, practice periods may be lengthened. Depressing drugs, as alcohol, must be avoided.

Trial and error. Trial and error learning has been treat-

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ed by most writers as a "kind" of learning. It is actually a method of control. The learner is projected into a situation with no directions or advice, with no knowledge of what he is expected to learn or why. He then blunders around until he satisfies the unknown demands of the situation. Observation of the learner's behavior in such situations can contribute to our knowledge of the learning process only to the extent that one or another specific control is introduced (thereby removing the learning from pure trial and error). Controls commonly used are reward at a specific point, punishment at specific points, "sign posts" and varied difficulty of the task. Trial and error learning is the antithesis of satisfactory school procedure, although it may be a useful experimental device.

Psychological Values

Retention and forgetting. The one who has learned is more or less fitted to respond effectively in situations for which he has been trained. Good retention is based upon learning carried out to a high level as well as upon undefined qualities of the learner.¹⁷ Formerly forgetting was thought to be largely a function of disuse and the fading of impressions with passage of time. The present opinion of psychologists is that old learning is not "retained" largely because new learning inhibits or replaces it. Just as activity brings about learning so does that same activity cause forgetting of formerly learned things. In practice, then, good retention of anything can be insured only by occasional review to undo the inhibiting and modifying effects of later activities.

Transfer. The value of any learning may be much more in the ability of the individual to adapt the thing learned and retained to an unanticipated situation than in its use in unchanged form. In a sense it is the person, or his mind, that is adaptable rather than the thing learned. The 19th century doctrine of the training of mental faculties was based upon this fact. Investigations have amply demonstrated that transfer does occur in varying amounts.¹⁸ Transfer may occur by applying in a new situation pre-

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viously learned information, study habits, attitudes, ideals, and generalizations. They may be applied inappropriately as well as advantageously, leading to interference as well as aid. Transfer is better in individuals of higher intelligence; in fact this ability to use old experience to good advantage is a fundamental meaning of intelligence. Transfer is favored when things are learned in their relationships to larger situations rather than as isolated facts or skills. Perhaps "insight" learning is equivalent to transfer. If mind refers to the adaptive functions of the individual, then transfer may refer to mind functioning at its best.

NOTES ON THE CHAPTER

1. See J. R. Angell, "The Relations of Structural and Functional Psychology," *Philosophical Review*, XII (1903), 243-271.
2. See C. H. Judd, *Psychology: General Introduction* (New York: Charles Scribner's Sons, 1907, pp. xii, 389).
3. See E. L. Thorndike, *The Fundamentals of Learning* (New York: Teachers College, Columbia University, 1932), pp. xvii, 638.
4. See I. P. Pavlov, *Conditioned Reflexes*, tr. G. V. Anrep, (London, Oxford University Press, 1927), pp. xv, 430.
5. See Max Wertheimer, "Experimentelle Studien ueber das Sehen von Bewegung," *Zeitschrift fuer Psychologie*, LX (1912).
6. See Wolfgang Koehler, *The Mentality of Apes*, tr. E. Winter, (New York: Harcourt, Brace and Company, 1925), pp. xviii, 342.
7. See K. S. Lashley, "Learning"; I, "Nervous Mechanisms in Learning," in C. Murchison, ed., *Foundations of Experimental Psychology*, (Worcester: Clark University Press, 1929), pp. 524-563.
8. See William F. Bruce, this volume, chap. XVII, for discussion of "Growth," pp. 355 ff.
9. See H. C. Lehman, "The Creative Years in Science and Literature," *The Scientific Monthly*, XLIII (1936), pp. 151-162.
10. See W. A. Dorland, "The Triumph of Maturity," *Welfare Magazine*, XVIII (1927), pp. 1307-1329; 1444-1465.
11. See R. H. Wheeler and F. T. Perkins, *Principles of Mental Development* (New York: Thomas Y. Crowell Company, 1932), pp. 18-25, 372-376.
12. See J. A. McGeoch, *The Psychology of Human Learning* (New York: Longmans, Green and Company, 1942), pp. 156-261.
13. See R. A. Davis, *Psychology of Learning* (New York: McGraw-Hill Book Company, 1935), pp. 339-352.
14. See R. M. Ogden, *Psychology and Education* (New York: Harcourt, Brace and Company, 1926), pp. 239-244.
15. See G. O. McGeoch, "The Whole-Part Problem," *Psychological Bulletin*, XXVIII (1931) pp. 713-719.
16. See J. A. McGeoch, *op. cit.*, pp. 262-313.
17. See *ibid.*, pp. 314-357.
18. See *ibid.*, pp. 394-452; also Charles L. Jacobs, this volume, chap. XIII, for an extensive account of "transfer."

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CHAPTER XI

THE CONCEPT OF INTELLIGENCE

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What is Intelligence?

The frequently recurring term "intelligence" has been loosely and indefinitely used with many and various meanings, some of them confusing and obscure. A generally acceptable and adequate definition has not been formulated. That quality or property of the organism called intelligence cannot be isolated and brought into sufficiently sharp relief to be defined clearly. Attempted definitions are mainly theoretical and speculative. Intelligence can, however, be described operationally in terms of some of its observed features,—in terms of phenomena associated with it.

Some of the most common attempts at definition are in terms of abilities, capacities, powers, and mechanisms, with such variously designated functions as versatile responses, learning, good responses, unifying behavior, abstract thinking, and adaptation to novel situations. Proposed definitions of intelligence have been criticized as either too restrictive, too inclusive, or limited to some special aspect of its totality. These attempts have contributed toward a better concept and understanding of intelligence.

Alfred Binet, one of the earliest workers in this field, defined intelligence as a capacity for "comprehension, inventiveness, persistence, and critical analysis." The abil-

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ity to understand fully, to imagine new relationships, and to examine carefully the constituent elements of anything involves abstract thinking which is an important, if not the major, aspect of total intelligence. The ability to persevere in a course of conduct in spite of obstacles and discouragements probably belongs to *character* in the McDougall sense of the term rather than to intelligence.¹

George S. Stoddard, a recent investigator, defines intelligence as

the ability to undertake activities that are characterized by (1) difficulty, (2) complexity, (3) abstractness, (4) economy, (5) adaptiveness to a goal, (6) social value, and (7) the emergence of originals, and to maintain such activities under conditions that demand concentration of energy and a resistance to emotional forces.²

This definition has much in common with that of Binet, and contributes a discriminating enumeration of the essential qualities of the same major aspect of intelligence. Stoddard explains at some length each term used in the definition and thus provides an excellent analytical description of intelligence at its highest level. This concept is not sufficiently comprehensive to include animal intelligence and is not intended to be. Some would question whether the abstract thinking concept is broad enough to cover the activities of young children and a large part of the reactions of adults.

A concept of intelligence should not, on the one hand, leave out too much nor, on the other hand, be so broad as to have little practical value. Boynton describes intelligence as "an inherited capacity of the individual which is manifested through his ability to adapt to and reconstruct the factors of his environment in accordance with the most fundamental needs of himself and his group."³

F. N. Freeman considers acceptable a similar concept of intelligence which is "the ability to learn acts or to perform new acts that are functionally useful."⁴ Intelligence may be thought of as an aptitude for meeting novel situations successfully in which reflection or abstract thinking is the climax of an intelligence hierarchy. This aptitude,

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partly innate and partly acquired, results from the interaction of the biological equipment which makes superior adjustments possible and the novel situations of the environment which make them necessary. Persons are intelligent to the degree that they make successful adaptations to their environments, the most intelligent being those who are able to understand the interrelationships of pertinent facts and values in a way that will guide their behavior most economically and quickly toward a desired goal.

The Inheritance Factor

The biological basis of intelligent behavior is the integrated body as a whole. The individual with his inherited equipment is the active agent in making adjustments and within whom the behavior originates. To certain fixed aspects of the environment the adjustments are innate and complete. For the complex, changing, unanticipated and novel aspects of the environment, the human organism is provided by nature with certain organs and structures with generalized and incomplete functions and capacities. Intelligence is described by Thurstone as "incompleteness of expected behavior" and in discussing adult intelligence he says that

In a biological sense the higher thought processes serve the same purpose for the organism as the simplest anatomical differentiation of the exploring function. The two are exactly the same in kind. They differ only in the degree of incompleteness of the experiences that are being chosen and eliminated. ⁵

Man's ability to make superior adjustments is due to inherited characteristics basic to intelligence. Evolution and inheritance have made it possible for man to become the adaptable animal *par excellence*, the rational human being.

The most important correlates of intelligence are the brain, especially the gray matter of the cerebral cortex; the freedom of the hand; the vocal apparatus for articulate speech; and the prolongation of infancy.⁶ There has been a close parallelism in the development of these distinctly

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human characteristics, together with the eye and ear distance receptors.⁷ They form the inheritance factors out of which intelligence emerges. They are conditioned, of course, by such physiological functions as those of the endocrine glands.

The highly developed human brain with its associational neuron activity, and chemical impulses⁸ traveling over the multitudinous pathways is little understood. Though obscure, it is agreed that the cerebrum, especially the highly developed and intricate frontal lobes, makes possible man's complex and rational adjustments. It is composed of around ten billion interconnecting neurons, several million perhaps being involved in a single thought process. The possible associations and pathways provided, the changes and integrations permitted, are limitless.⁹ The cerebrum is the chief correlate of intelligence, directing and controlling other organs of the body to the end that superior adjustments can be made and desired goals reached.

The vocal apparatus for articulate speech, with the assistance of the hand and under the supervision of the brain, has made the development of language possible. There is a close relationship between language and intelligence, vocabulary playing a major role in mental testing. With the substitution of sound symbols for overt acts communication is facilitated and the higher levels of intellectual behavior made possible. When the trial and error process passes by means of language to the ideational realm, the biological climax of reflection as a means of adjustment is made possible. The vocal apparatus for articulate speech has unlimited capacity for vocabulary expansion and language acquisition. New symbols are being continually invented to facilitate the thought process. Language is of supreme importance in intelligent behavior.

Without the hand to carry out directions, the human brain, even though developed, would be helpless. It assisted in the development of language, and recorded cumulated experience in written form. It made possible the manipulation of the environment and the development of civilization. Without the hand there would have been no

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agriculture, art, commerce, literature, music, philosophy, *nor human intelligence itself.*

Another biological correlate of intelligence is the length of human infancy, during which growth continues under the formative and stimulating influences of the environment. There is during this prolonged period a marked capacity for learning. It is a plastic period when the individual is especially sensitive and adjustable to surroundings. It is a time when the environmental factors are most important and effective in the development of intelligence.

The Environmental Factors

The environment provides the medium, opportunities, and stimulation for the inherited structures and capacities to grow, develop, and function. By environment is meant all the external conditions, forces, and influences affecting the organism. The adjustments between the organism and the simple and fixed features of the environment, which are carried in the genes and inherited from progenitors, are considered instincts and nonintellectual. The adjustments between the individual and the complex and changing aspects of the environment, which are acquired through experience, are considered learned and intellectual. In the latter are the social phenomena which loom large and far-reaching as environmental factors.

The environmental variables of a social nature which have been considered of major importance in their bearing upon intelligence are the socio-economic status of home and community, educational and cultural level of parents and associates, nursery school training, type of school attendance, geographical location, institutional residence, and special training programs. Investigations show, as would be expected, a positive relationship between these features of the environment and intelligence. It is impossible to isolate and measure adequately these variables, due to the wide overlapping involved and the lack of valid social measurement techniques. In general, superior environments and superior intelligence are mutually related.

A clear distinction should be made between the total

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general environment and those aspects of it which may be designated as either effective or potential. The effective environment is that particular part of the total environment to which, at any given time, an individual is sensitive, attentive, and responsive. The potential environment is limited to those parts of the total environment to which a particular individual, at some time, has the possibility of sensitiveness and responsiveness. Any part of the environment to which there is neither conscious nor unconscious response is non-existent so far as a particular individual is concerned, and he cannot be influenced or profit thereby. The cumulative influence of the immediate home surroundings upon intelligence for instance, varies with the individual's native ability to actualize environmental potentialities. It is interesting to note in this connection that better heredity and better environments tend to go together. The relative influence of each of these factors upon intelligence has received much study and there are strong differences of opinion.

Relative Contributions of Heredity and Environment

The brilliant guesses of the best thinkers on the nature-nurture problem vary to a marked degree, leaving the issue highly controversial. Terman, one of the most prominent workers in this field, stresses inheritance as the major factor in intelligence. He says:

One who has followed the age-old controversy between hereditarians and environmentalists will hardly be surprised to find that the new evidence does not all point in one direction. Its inconsistency is partly accounted for by the difficulty of controlling all the variables that may affect the results of a given experiment. The rule seems to hold that the more carefully the irrelevant factors are controlled, the weaker the evidence for large environmental influences. ¹⁰

On the other hand, Skeels, one of the University of Iowa investigators, concludes that intelligence is much more responsive to environmental changes than had been thought;

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that, within a wide range, the home environment rather than the true-family background sets the limits of mental development; and that any hereditary constitutional factor that sets the limits of mental development operates within broad limits.¹¹

The relative contributions of heredity and environment to intelligence are impossible to determine. They are two interlinked and entangled aspects of the same thing, both important and necessary to intelligence as we understand it. It is the end product of the interaction of these two factors that we describe and measure, and call intelligence. Stoddard, the leader of the University of Iowa environmentalist group, states that heredity and environment are part of the same growth process, as follows:

It is essential to think of the contributions of heredity and environment, not as mutually exclusive or diametrically opposed, but rather as close-coupled factors whose impingement is mutually interacting. Environment does not act *upon* heredity (who would say heredity acts *upon* environment?); rather various combinations of factors and forces, with different origins, produce measurable results in child development.¹²

In this connection, Carmichael, with hereditarian leanings, says:

It may be because of my biological bias that I do not see how education *as such* can change the fundamental protoplasm of the individual and render him "more intelligent." But it does seem clear that without education, no matter what protoplasm a given individual may have, he cannot do well on most intelligence tests or in most life situations in civilization that require intelligent behavior. Thus in a sense the educator may well teach always as if he were aiming to increase intelligence as well as to impart knowledge.¹³

Terman, who has always appreciated the value of environment, says:

This is not to say that environment can be regarded as a matter of small consequence. To it alone we owe the major cultural advances that separate us from our barbaric an-

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cestors of 3000 years ago. The hereditarian can wholeheartedly join with the environmentalist in the demand that more and better educational opportunity be provided for every child, but he has too much respect for facts and too little faith in miracles to expect that equalization of opportunity will result in equality of achievement. ¹⁴

Jennings, an eminent zoologist, believes that

For members of the same family . . . the differences in mentality and temperament will probably be due more largely to diversity of gene combinations than to diversity of environment. The same is likely to be true for the differences between any small set of individuals belonging to the same social stratum, or living under similar cultural conditions . . . Yet as we proceed to larger and more heterogeneous groups, the answer becomes less clear . . . my own guess would be that the greater number of important differences are still those due to diversity of genes. ¹⁵

Each particular operating condition and influence of the environment affecting the intelligence of a given individual cannot be known. Measurements of the total and potential, let alone the effective, environment of any individual or group of individuals are difficult and unreliable. It is even more hopeless to isolate and measure directly the factor of intelligence in the genes, the vehicles of heredity. If intelligence is the product of heredity and environment consolidations, the complex and obscure contribution of each is not as significant as the improvement of both. Eugenics and eugenics are both important, the educator being mostly concerned with the latter.

Deviations in Intelligence

As Robert S. Ellis shows later in his chapter on "Individual Differences," the variation of mental ability among individuals approximates the normal distribution curve. The middle fifty or sixty per cent of all individuals clustering around the hypothetical average, are for practical purposes classified as having normal intelligence. The rest of the population diverge in equal proportions above and below the arbitrarily designated normal group, the greater

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the deviation from the average individual the fewer there are. Although relatively small in number, the influence of extreme deviates is large. The mentally deficient create troublesome social problems, and it was because of them that the first studies in intelligence were undertaken. The mentally superior complicate the environment with inventions and innovations, and to them society must look for the great contributions to civilization.

Most of what is known about intelligence and its measurement has been acquired from studies of extreme deviates. The factors commonly investigated as causes of individual differences in intelligence are environment, family, maturity, race, and sex. The relationship between these variables and intelligence are so complex, overlapping, and involved that it is impossible to isolate completely one factor and determine its unique influence. No significant influence of sex *per se* upon intelligence has been discovered. Investigations reveal a lower average intelligence for certain racial groups in the United States than for the American population as a whole and a disproportionate share of inferior deviates. The reverse, however, is true for certain other ethnic stocks. Whether this is due to ethnic stock *per se* or to selective factors back of emigration from the mother country and to environmental differences and influences, remains unknown.¹⁶

The importance of family as a factor in intelligence is well established. Studies of the intelligence relationship between child and parents tend to show correlations around 50. This is significant but since it includes both heredity and environment, much is left to speculation. Children inherit ancestral characteristics not possessed by immediate parents but carried in their genes. The recombination of genes of the two parents has unlimited possibilities and results in offspring variations. Freeman describes the significance of the gene theory of heredity as follows:

The gene theory of inheritance offers an explanation of: (1) the diverse character of intelligence; (2) the breeding of feeble-minded by feeble-minded; (3) the small percentage of normal offspring of mentally deficient parents; (4) the deficient progeny of one deficient and one normal par-

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ent; (5) the frequency of mediocre children from mediocre parents; (6) the breeding of superior children by "average" parents; (7) the breeding of inferior children by "average" parents; and (8) the frequency of eminence of superiority in certain families. ¹⁷

Thus native mental ability, in the last analysis, seems to follow germinal inheritance, with feeble-mindedness a recessive trait. Among unmeasured influences may be acquired structural defects and limitations, emotionality, physiological functionings, personality disturbances, and many unobserved situations in the environment.

There is a close relationship between intelligence and chronological age during the period of biological growth and development. Other things being equal, the older are more intelligent than the younger up to the time of mental maturity. There are differences of opinion as to when innate mental ability completes its development and reaches its maximum potentiality. The generally accepted age for mental maturity is sixteen, subject to variations among individuals. Decline in learning ability due to age does not seem to be significant before fifty, and in some cases not until a much later age. Chronological age after maturity ceases to be an important factor in intelligence, and its chief significance at any period of life lies in its relationship to stages of maturity. There is a wide variation in growth and development among individuals of the same chronological age. Age has been selected as the general standard of expected maturity, and the basis for making comparisons between deviates and for estimating levels of intelligence.

Measurement of Intelligence

Intelligence is sometimes defined as that which is measured by intelligence tests. The accuracy of this depends upon the validity of the test; that is, the degree to which the test items and samplings conform to an accepted concept of intelligence and measure what is intended to be measured. Measurements of intelligence are conditioned by the intelligence concepts involved. If intelligence is

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thought of as an aptitude for meeting successfully novel situations in which reflection or abstract thinking is the climax of an intelligence hierarchy, then the level of intelligence is estimated from the degree of difficulty represented by appropriately selected situations to which successful responses are made. Since there is no direct measurement of innate mental ability, the measurement of intelligence has become implicated in the nature-nurture bias and controversy. According to Freeman:

The aim of intelligence tests is, so far as possible, to so choose the materials of which they are composed that the effect of differences in experiences will be reduced to a minimum, and this aim has in a measure been attained. No one would claim, however, that the attempt has been completely successful. ¹⁸

In the measurement of intelligence there has been some indefiniteness and confusion between *level of intelligence* and the *breadth of achievement* at particular levels of ability. Intelligence tests are designed to measure the former and achievement tests the latter. Naturally there is a high although far from perfect relationship between these two features of mental life. The most commonly used intelligence tests have high reliability and are generally accepted by authorities in the field as having sufficient validity for judicious use and careful prediction.

The Stanford revision and extension of the Binet-Simon scale for the measurement of intelligence has been foremost in the field, although many variations and adaptations of it have been devised and used. It consists of standardized questions and tasks designed to determine the mental age of a person as compared with established norms for different chronological ages. The intelligence quotient (I.Q.) of a person is denoted by dividing the derived mental age by the chronological age up to sixteen. Individuals with an I.Q. above 140 have been arbitrarily classified as genius or "near" genius; between 120 and 140 as very superior; between 110 and 120 as superior; between 90 and 110 as normal or average; between 80 and 90 as dull; between 70 and 80 as borderline deficiency; and

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those below 70 as feeble-minded. Sixty per cent of all individuals fall within the 90 to 110 I.Q. range and ninety per cent within the 80 to 120 range. The feeble-minded with an I.Q. between 50 and 70 have been designated as morons; between 20 or 25 and 50 as imbeciles and below 20 or 25 as idiots. In the classification of intelligence quotients, Terman cautions:

When we use these terms two facts must be borne in mind: (1) That the boundary lines between such groups are absolutely arbitrary, a matter of definition only; and (2) that the individuals comprising one of the groups do not make up a homogeneous type.

Nevertheless, since terms like the above are convenient and will probably continue to be used, it is desirable to give them as much definiteness as possible. ¹⁹

The interpretation of ability as revealed by intelligence tests should be in conformity with the concept of general intelligence held by the test maker. A test designed to measure ability to do abstract thinking does not necessarily measure ability to deal with concrete materials, to make social evaluations and adaptations, or to follow some special talent. Some psychologists believe the structure of general intelligence is unitary in character and that special abilities are due to special interests and training; others believe that there is a general factor which operates in all situations and specific factors operating only in limited fields; and still others believe that there are several primary abilities composing so-called general intelligence. The special factors concept does not run contrary to what is known about the genes as determiners of specific traits. Whatever the analytical structure of intelligence, it is unreasonable to assume that intelligence is ever measured *in toto*. But the "general intelligence" that is measured and expressed in terms of I.Q. has great significance and merits the vast research which has been devoted to it.

The Constancy of the I. Q.

Intelligence is measurable on a relative basis only and

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must be estimated from comparative standards. For this purpose it is necessary to have a numerical index of intelligence which retains a uniform value or significance under different given age conditions throughout the period of mental development covered by the measuring scale. The mental-chronological age ratio or intelligence quotient (I.Q.) was devised as the numerical index of intelligence. This has the requisite stability or constancy and has been generally accepted and used as a valid index of intelligence. It is the common practice now to use the term I.Q. when referring to the intelligence of a person. Although the validity of the I.Q. as an index of intelligence has been recently criticized, it will continue to be used until a better one is devised.

When it comes to the constancy of the I.Q. from year to year for a particular individual, there has been sharp disagreement. The Iowa group of investigators stresses the variability of intelligence, holding that it is determined exclusively by environment and training. Stoddard seems to throw the I.Q. concept entirely overboard when he says, "The simple truth is that the I.Q., as frequently envisaged, is a myth: it is *deus ex machina*—something apart from and independent of actual organic and cultural events."²⁰ Terman, on the other hand, stresses the constancy of the I.Q. He believes the preponderance of evidence supplied by long and careful research is on the side of its validity, and reaffirms his position on both the variability and the constancy of the I.Q. as follows:

An obtained I.Q. is not only subject to chance errors resulting from inadequate sampling of abilities, but also to numerous constant errors, including practice effects, negativism, or shyness, the personal equation of the examiner, and standardization errors in the test used. For these reasons an obtained I.Q., as I have many times pointed out, should never be taken as a final verdict, but only as a point of departure for further investigation of a subject.²¹

The I.Q. advocates do not claim that mental growth invariably conforms to a predetermined pattern but that on the whole with ordinary environments there is a definite

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and significant tendency for persons to maintain over a period of years their same relative I.Q. positions and that the variations themselves are generally confined within a rather limited range.²² It is held that this degree of I.Q. constancy, when properly understood and interpreted, is sufficient for predictive value and guidance purposes. Significant behavior difference within the usually found range of variations is not apparent. Since the measurement of learning ability employs the indirect technique of testing what has been learned, the test I.Q. is only an approximation of the true one and should be interpreted within the probable error range. It can be logically assumed that the true I.Q. is more constant than the test I.Q. and that part of the usually found variability is due to the inadequate testing and statistical techniques employed. The I.Q. concept has contributed much to the study and understanding of intelligence, and has stimulated the provision of educational opportunities suitable to the different learning capacities and aptitudes.

Educational Implications

An individual's native learning capacity, as a major factor in intelligence, makes education possible and conditions it. The social environment, as the stimulating factor providing situations to which native intelligence responds, makes education necessary and determines its scope and nature. This concept of intelligence, when particularized, implies that a person is potentially intelligent to the degree that he is able to make successful adjustments between himself and his environment, and is effectively intelligent to the degree that he does so. The native factor in intelligence is of prime interest to the eugenicist. The practical educator must accept the growing individual with whatever potential and effective intelligence he possesses at any given time, and go on from there through environmental stimulations. While the environment cannot provide what nature denied, it is the only means at hand for guiding nature's gift toward full fruition and desirable goals. This is a realistic rather than a deterministic concept of intelli-

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gence. Effective intelligence for a given individual is usually far below potential ability, and, within the range of capacity, achievement is practically unlimited, depending upon individual interest and effort, and environmental opportunities.

To the educator the environment, especially the simplified, graduated, broadened and purified surroundings of the classroom, is of primary concern. Suitable individual and small group opportunities should be provided for all, neglecting none, with due recognition to special talents and environmental status as well as to general learning capacity. A school environment arranged for the dull is too simple for motivating the bright; if arranged for the bright, it becomes too difficult for stimulating the dull; and, if arranged for the average, it tends to lead all toward mediocrity. Unless appropriate stimulation is provided, a high I.Q. *per se* adds little to achievement; its potentialities become wasted and lost to society and may even lead to serious social maladjustments and emotional instability.

It is the responsibility of educators to strive toward increasing the effective intelligence of each individual by providing the richest possible environmental stimulation. Desirable personality traits, emotional stability, and value concepts may be largely indirect results growing out of worthwhile achievement in specific tasks and mastery of useful skills and knowledge commensurate with the capacity and talents possessed. The school environment should motivate the acquisition of a rich vocabulary, accurate concepts, and sound ideas, which are essential to abstract thinking at the higher levels of intelligence; and also provide definite problems suited to the capacity, interest, and use of the individual concerned. Any neglect of this motivation results in a waste of childhood and violates a sacred social duty. Intelligence test scores, when reliably obtained and properly interpreted, can be of much assistance in arranging the specific environments of the school curriculum to the end that abilities and stimulations are adequately co-ordinated. The classroom teacher, as a person with all the stimulating influences and *rapproch* emanating therefrom, is a dominant part of the schoolroom environment;

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and, as an educator, is a manipulator of this environment for the maximum benefit of the individual to himself and as a member of society. The educator's concept of intelligence has profound educational implications.

NOTES ON THE CHAPTER

1. See William McDougall, *The Energies of Men* (New York: Charles Scribner's Sons, 1943), pp. 185-188.

2. George S. Stoddard, *The Meaning of Intelligence* (New York: The Macmillan Company, 1943,) p. 4.

3. Paul L. Boynton, *Intelligence, Its Manifestation and Measurement* (New York: D. Appleton and Company, 1933,) pp. 19-20.

4. Frank N. Freeman in National Society for the Study of Education, *Thirty-Ninth Yearbook, Intelligence; Its Nature and Nurture* (Bloomington: Public School Publishing Company, 1940), I, p. 18.

5. L. L. Thurstone, *The Nature of Intelligence* (New York: Harcourt, Brace and Company, 1927), p. 163.

6. See Frank W. Thomas and Albert R. Lang, *Principles of Modern Education* (Boston: Houghton Mifflin Company, 1937), chap.'s IV and V, pp. 65-94.

7. See Frederick Tilney, "How the Hand, Foot, and Brain Led the Way to Humanity," *World's Work*, LVIII (December, 1929), pp. 45-51.

8. Note:—The 1936 Nobel Prize for Medicine was divided between Dr. Otto Loewi (Austria) who discovered, and Dr. Henry H. Dale (London) who proved, that nervous impulses are the result of chemical action, not electrical action as formerly supposed.

9. See Frederick Tilney, "The Human Brain, Master of Our Destiny," *World's Work*, LIX (January, 1930), pp. 48-51.

10. Lewis M. Terman in National Society for the Study of Education, *The Thirty-Ninth Yearbook, Intelligence; Its Nature and Nurture* (Bloomington: Public School Publishing Company, 1940), I, p. 460.

11. See Harold M. Skeels in National Society for the Study of Education, *Thirty-Ninth Yearbook, Intelligence: Its Nature and Nurture* (Bloomington: Public School Publishing Company, 1940), II, p. 305.

12. George D. Stoddard, *The Meaning of Intelligence* (New York: The Macmillan Company, 1943), p. 322.

13. Leonard Carmichael in National Society for the Study of Education, *Thirty-Ninth Yearbook, Intelligence: Its Nature and Nurture* (Bloomington: Public School Publishing Company, 1940), I, p. 447.

14. Lewis M. Terman in National Society for the Study of Education, *Thirty-Ninth Yearbook, Intelligence; Its Nature and Nurture* (Bloomington: Public School Publishing Company, 1940), I, p. 466.

15. H. S. Jennings, *The Biological Basis of Human Nature* (New York: W. W. Norton and Company, 1930), p. 181.

16. See Leta S. Hollingworth in National Society for the Study of Education, *Thirty-Ninth Yearbook, Intelligence: Its Nature and Nurture*. 1940. (Bloomington: Public School Publishing Company, 1940), I, pp. 46-48, 56-58.

17. F. S. Freeman, *Individual Differences* (New York: Henry Holt and Company, 1934), p. 74, footnote.

18. Frank N. Freeman, *Mental Tests: Their History, Principles and Applications* (Boston: Houghton Mifflin Company, 1939), p. 256.

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19. Lewis M. Terman, *The Measurement of Intelligence* (Boston: Houghton Mifflin Company, 1916), p. 79.
20. George D. Stoddard, *The Meaning of Intelligence* (New York: The Macmillan Company, 1943), p. 258.
21. See Lewis M. Terman in National Society for the Study of Education, Thirty-Ninth Yearbook, *Intelligence: Its Nature and Nurture*. 1940, Part I. p. 466. (Bloomington: Public School Publishing Company, 1940), I, p. 466.
22. See Lewis M. Terman, *The Intelligence of School Children* (Boston: Houghton Mifflin Company, 1919), pp. 148-149.

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CHAPTER XII

INDIVIDUAL DIFFERENCES

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The Nature of Individual Differences

To say that individuals differ is to state the obvious. Yet the psychology of individual differences as we know it to-day is mostly a product of the present century and is a result of the application of laboratory studies and mental tests to millions of individuals. In this development, American psychologists have played the leading role.

Early references to individual differences usually tended to take the form of type classifications. For example, men were classified as to temperament as choleric, sanguine, melancholic, or phlegmatic. With reference to intelligence they were classified as geniuses, normals, or defectives.

With more accurate measurement and statistical study of these characteristics, type classifications tended to be discarded. There were two reasons for this. In the first place it appeared that differences among individuals were not qualitative in nature but instead were differences in the strength or degree of development of characteristics. Thus each person was found to be to some degree choleric *and* sanguine *and* melancholic *and* phlegmatic. It was not a case of *either . . . or . . .* In the second place it was discovered that when a single characteristic is measured in a reasonably homogeneous group the results can be plotted graphically and that there is a strong tendency for the

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distribution to assume a form more or less like what is variously known as a normal distribution curve, or normal probability curve, or curve of error. Essentially this means that most of the cases tend to be near the average and that as we go above or below the average the cases decrease in number until at some distance from the average very few if any cases are found. This, it is important to note, is not limited to psychological characteristics, but is found for the biological realm in general, including measurements of physical characteristics of lower animals and plants.¹

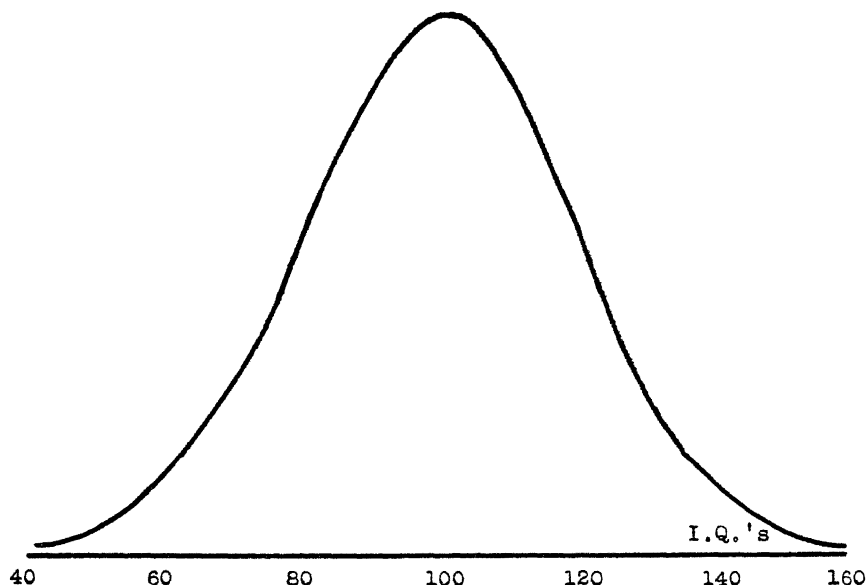


Figure 1. The distribution of I.Q.'s secured from a typical group intelligence test. Number of cases indicated on vertical axes.

Figure 1 shows the distribution of I.Q.'s to be expected from a typical group intelligence test.

Since the development of intelligence tests, beginning with the Binet test of 1905, millions of children and adults have been tested and group distributions have been determined. These have left little room for doubt that intelligence, as measured by current tests, has a distribution which conforms rather closely to the normal probability

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curve. Tests of specific abilities also usually show similar distributions.

Tests of emotional and personality characteristics are less well developed than intelligence tests and are of lower validity and reliability, but here again we find strong evidence usually of something approaching a more or less normal distribution.

Measures of Individual Differences

From the above, it appears that there is only one type, the average, and that other individuals are either above or below the average at a certain distance. We need then some method or methods of designating position in the distribution.

In case of I.Q.'s, a scale is used in which 100 is, by definition, normal or average. Superior individuals receive scores above 100; inferior individuals receive scores below 100. While different tests give somewhat different distributions of I.Q.'s, only a very few I.Q.'s below 50 or above 150 are found.

In any distribution the individual's position may be shown by giving either his percentile rank or his standard score. A given percentile rank tells the per cent of the group making a lower score. Hence if John receives a percentile rank of 40 on an intelligence test, this means that, according to the test, 40 per cent of the group are less intelligent.

Standard scores, also known as T-Scores, have an arbitrary average of 50 and a standard deviation of 10. For practical purposes, the standard deviation is about one-fifth or one-sixth of the total range of the scores when a large group is used. This means that standard scores range from about 20 or 25 at the lower end to 75 or 80 at the upper end. If John makes a standard score of 40 on arithmetic and one of 70 on reading, it means that he is one standard deviation below average in ability in arithmetic and two standard deviations above average in ability in reading.

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Differences Among Groups

The earliest interest in the use of tests was to discover the individual's position in the group. But as test results have multiplied, comparisons of groups have resulted. Group average may be compared, and also group variabilities. In this way, age differences, sex differences, and race differences may be studied.

Most characteristics grow with age up to maturity. Hence averages increase from year to year. Some psychologists have concluded that mental growth stops in the average person as early as fourteen or fifteen or sixteen years. There is, however, considerable evidence that mental growth continues as long as physical growth continues. This would mean that the average person continues to grow mentally until about the chronological age of twenty years.

In addition to quantitative age differences, there are also qualitative age differences. Sensory capacities are among the first to mature. Concrete imagery seems to reach a maximum in the early teens and then to give way somewhat to symbolic imagery. Rote memory is more characteristic of the elementary school period while rational memory develops more during the high school period. Capacity for abstract thinking and for the solution of new problems is among the last things to develop. The Binet tests afford valuable information as to the capacities maturing at each age level.

Because of the variability of children of each age, some children of a given age, say eight years, test higher than some children who are older, say ten years, while some children of eight will test lower than some who are younger, say six years. Terman² found great overlapping in the performances of children in the school grades. If a standardized intelligence or general achievement test were given the same day to a group of high school seniors and to a group of college seniors, the best high school seniors would make higher scores than the poorest college seniors.

Studies of sex differences have shown no important average differences in general ability but have shown some

differences in specific abilities. Girls on the average do somewhat better on tests of memory and in language work. Boys on the average do somewhat better on tests requiring mechanical ability or mathematical ability. But the two distributions usually overlap greatly.

In the non-intellectual fields, girls appear to be somewhat more introverted, less aggressive and more interested in personal, social, aesthetic, and religious affairs, while boys are more interested in business, politics, mechanics, science, and philosophy.

The most conspicuous sex difference in performance is found in the field of motor strength and skill. As an example, based on Pomona College students, mostly sophomores, the average man's strength of grip with the right hand is about 56 kilograms while that of the average woman is about 34 kilograms. No woman to date has done better than 52 kilograms. One practical aspect of this is that the best women athletes ordinarily cannot compete favorably with the best men athletes.

Many studies have been made of race differences, but in this field there are many serious technical difficulties yet to be overcome before we can have satisfactory data. There are also serious differences of opinion as to the interpretation of the facts so far determined. Using the common classification by skin color, the white and yellow races have made about equal scores on intelligence tests. Other races have made lower scores. North Europeans have done somewhat better than South Europeans.

In the United States, Negroes make scores on intelligence tests which are, on the average, well below those made by whites, but, of course, with great overlapping of the two groups. However, we cannot conclude that this difference is all due to a difference in native intelligence because the economic, social, and educational factors which might affect the scores have not been equal, and so it seems fair to infer that if the Negroes had had equally good environmental opportunities they would have done somewhat better than they did. How much better, we do not know. Some students believe the differences in scores to be due entirely to differences in environment; others believe a large part

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of it is due to native differences. In any case the differences within a race are much greater than the average differences between races.

Interesting group differences are also found in relation to geographical distribution. World War I test results showed that the Pacific Coast states had the highest scores while some of the Southern states had the lowest scores. These scores will be found to be correlated with differences in the development of the educational systems in the states concerned. Just how these results are related as to cause and effect is, however, open to argument.

In the same way, tests in a single state will show variations among communities. Book found this for the state high schools in Indiana when all of the seniors were tested on the same day. The average ability of seniors in some high schools was considerably above that of seniors in other high schools, though all were in the same state high school system. The same kind of variation is found in the scores made by college students on intelligence tests such as the American Council Psychological Examination for college freshmen, and also for achievement scores made on examinations given at the end of the sophomore year.

As we should expect, there are important occupational differences in intelligence. Journalists, lawyers, and engineers make the highest test scores. Business men do better than skilled laborers, and the latter do better than the unskilled. While we rarely find men of low intelligence in certain professions, we do find a few men of high intelligence among the unskilled. In the course of time with better vocational and educational guidance and with better educational opportunities, this number will tend to be reduced.

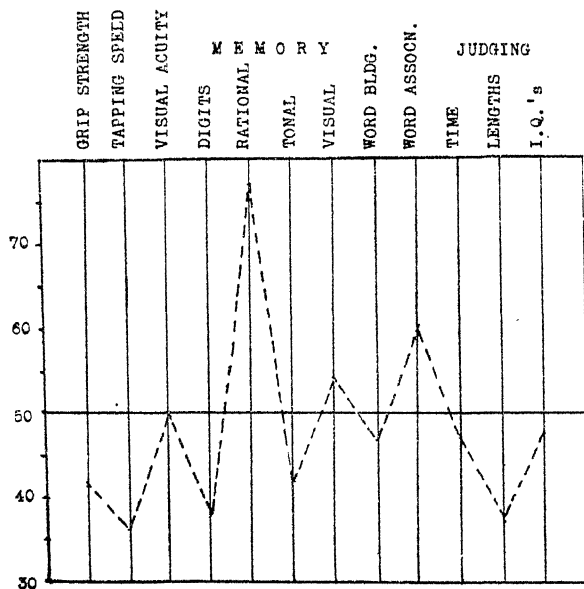
Differences Within the Individual

Early mental testers were interested mainly in determining the general intellectual level of individuals; but with the development of the testing movement there has been an increasing interest in the analysis of ability into more specific kinds of ability and their separate measurement.

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As an example of this, the California Test of Mental Maturity³ provides in addition to a general I.Q., a verbal I.Q., and a non-verbal I.Q., and also provides a place on the front of the test for plotting a profile chart which shows comparatively the relative strengths and weaknesses of the individual on different specific tests. Similarly, Wechsler's Bellevue Intelligence Scale for adults⁴ consists of ten separate tests, five verbal and five non-verbal. It likewise provides a general I.Q., a verbal I.Q., and a non-verbal I.Q., and if desired, the scores for the ten tests may be plotted as a profile chart.

The profile chart has marked advantages for showing a student's standing on different tests or parts of a single test. The general picture can be seen at a glance; it is easier to single out the strongest and weakest points; and the statistically untrained person finds the results much easier to understand. A profile chart based on twelve simple tests is shown in Figure 2. Such profile charts may be based on standard scores, on percentile ranks, or on age or grade norms.



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This raises the question as to the correlation between different abilities. If a person is superior or inferior in one trait, what does this indicate as to probable ability in another trait? Correlations may vary between minus 1.00 and plus 1.00. A correlation of minus 1.00 would mean that if a person is above the average in one trait he would be the same distance below the average in the correlated trait, while a correlation of plus 1.00 would mean that he would be equally good or poor in both traits.

There have been many popular beliefs in negative correlation, or compensation as it is sometimes called. Men with strong backs have been supposed to have weak heads; precocious mental development has been supposed to promise low adult mentality. However, test results fail almost uniformly to bear out these popular beliefs. In general, all desirable traits appear to be positively correlated, though the correlations are often low. This means that when an individual is above average in one trait he is more likely than not to be above average in other traits. But the lower the correlation the less the probability. Also, even high correlations do not ordinarily guarantee that a person who is above average in one trait will be above average in the correlated trait. The correlation coefficient simply states an average condition, and individual cases may show very wide variation in the relations between the relative strengths of the correlated traits. So when the average correlation is .75, individual cases may be found which show perfect negative correlation. "A" students in one subject are usually above average in other subjects, but we do find cases of "A" students in mathematics who are "F" students in languages.

Another way of stating the relationships existing between the different traits in an individual has been stated by Hull.⁵ Hull concluded that if a large number of traits could be measured in a single individual and these different scores be made comparable by being reduced to standard scores, they would if plotted tend to give something approaching a normal curve. A second tentative conclusion was that trait variation within the individual would

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on the average be about eighty per cent of the variation of traits in the population. A third conclusion was that individuals differed greatly in variability: some would show a high degree of consistency in performance on different tests, while others would vary about as much in different traits as the population would vary in a single trait. On this basis, an individual with an I.Q. of 115 might have specific abilities which would range from well below average to near the genius level. For this reason, intelligent educational and vocational guidance is of the utmost practical importance. In some cases within the present writer's experience, students who have been unlucky enough to register for courses for which they were not fitted, and as a result have made low grades, have made excellent records when their programs were changed to fit their capacities and interests.

Another kind of individual variation is found when a person repeats any measurable performance many times. The results, if plotted, give something like a normal curve. Thus, a golfer's scores may give a normal distribution varying from 80 to 100 with an average of 90. Similar variations are found in other fields.

Relative Variabilities

How much better or worse than the average is the exceptional man? The average person's memory span for digits is seven or eight. Only the very exceptional person can do eleven or twelve, which is about fifty per cent above average. In the field of intelligence an accurate answer is not possible, but we may get a suggestion from the I.Q. The child with an I.Q. of 150 is supposed to grow fifty per cent faster mentally than the average child, and on that basis should, as an adult, be fifty percent more intelligent than the average. Similarly the very rare genius with an I.Q. of 200 would be just twice as intelligent as the average man. Statistically then, while differences in mental capacity are very important, they may not be as great as is often supposed.

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Extreme Deviations in Mental Traits

The discovery that the distributions of the different mental capacities tend to conform to the normal probability curve prepares the way quite naturally for the recognition of the fact that there will be a few individuals who will be exceptionally strong in any trait, and likewise a few who will be as exceptionally weak. With respect to intelligence, we have the geniuses at one end and the defectives—the morons, the imbeciles and the idiots—at the other. With respect to mental balance and the general integration of behavior we have the exceptionally well integrated at one extreme and the insane at the other. With respect to conformity to the canons and codes of society we have the loyal conformists and the thoroughly moral at one extreme and the criminals and the “respectable” racketeers at the other.

Broadly interpreted this means that geniuses and idiots have the same kind of minds but that geniuses have minds that are much more highly developed and much more efficient than those of defectives. It means that the insane have minds like those of normals but that the insane show mental disorganization to a much greater degree. It means that criminals and normal men have the same kind of drives but that criminals are less socialized.

This point of view makes these and other extreme deviations more intelligible. As stated earlier in this chapter we no longer need to think in terms of type classifications. Geniuses and idiots, criminals and the insane are not qualitatively different types: they are simply the extremes of the population in particular respects. Similarly there would be extremes in any field. Some have very exceptional visual acuity. Some have exceptional tonal memory or pitch discrimination. Some have exceptionally fast reaction time. Some have phenomenal memories. And some, sad to relate, deviate just as far in the opposite direction.

As stated above, the intelligence quotient is used to measure deviations from average intelligence. However, various tests differ considerably in the variability of their I.Q. values, and the same test has been found to vary markedly

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at different ages. As a result an I.Q. of 130 on one test may be equivalent to an I.Q. of 150 on another test, or an I.Q. of 130 at one age may be equivalent to an I.Q. of 150 at a later age on the same test.⁶ Group tests seem to give wider variabilities than individual tests. Hence it is wise to be careful and explicit in considering just how much deviation from the average a given I.Q. represents.

Since the I.Q. is essentially a measure of the rate of mental growth, this means that very bright children grow very rapidly mentally, and very dull children grow very slowly. Growth studies usually indicate that mentally defective children stop growing at an earlier age than normal children stop growing. This would suggest that bright children would continue to grow longer than the average. Here, however, the evidence is not clear and is hard to interpret, though it has been found that college seniors make higher scores on intelligence tests than they made as freshmen.⁷

A more detailed analysis of the mental deficiencies of dull children will show that they learn at a slower rate; that they do fairly well with concrete materials but find abstractions and generalizations more difficult and perhaps impossible; that they tend to use rote memory rather than rational memory; and hence that they tend to forget more rapidly and that they consequently need more drill. In general they show less energy and less initiative. They differ from the normal less in the lower processes such as sensory capacity and rote memory and more in the higher processes such as rational memory and reasoning power. Physically also, defectives tend to be below average: they appear to be more subject to diseases and on the average to have shorter lives.

Tests are not available to measure with accuracy the emotions of defectives but there is good reason for believing that they also tend to be weaker rather than stronger. But they are less likely to be controlled and so may appear stronger.

Superior children, in contrast, are likely to be above average in practically all respects. They are taller and heavier, on the average, than normal children. Their emo-

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tional and social adjustments appear to be, on the average, better than normal. But since superior children are selected for intellectual superiority, it is natural that their most characteristic superiority would be in the intellectual field. Their most striking superiority is in such fields as creative imagination, inventiveness, rational memory, and reasoning capacity. They have much more capacity for formulating and understanding abstractions and generalizations. And since generalizations are especially important in facilitating the transfer of training, superior children profit much more readily and extensively from training. The superior learn more quickly, retain material longer, and use it more extensively.

In terms of the I.Q. we can say that a superior child will arrive at a given level of capacity sooner than a dull child, and at the higher levels this means that the bright child arrives but that the child of low I.Q. never arrives. These differences obviously have most important implications for education.

Differences in capacity may have a vital effect on interest. While interests do not appear to have directly a very close relation to capacity, indirectly the relation is vital because we cannot have a great deal of interest in something unless and until we understand it. Also we like to succeed in what we undertake, and, if we find a task too hard, we are likely to lose interest in it and possibly to adopt a "sour grapes" attitude.

Causes of Individual Differences

Individual differences are the result of heredity and environment. Hereditary factors obviously determine some differences. On the environmental side, possible important causes of differences are nutrition, injuries, and the more psychological aspects of environment—including here, especially, training and education.

Some simple physical differences and some relatively simple psychological defects seem to be inherited as Mendelian unit characters. The strength of most normal psychological characteristics, however, appears to be deter-

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mined by a more complex hereditary mechanism known as multiple factor inheritance. On this basis, the strength of a mental characteristic such as visual imagery is assumed to be due to the combined effect of a number, possibly many, of pairs of genetic determiners inherited from both parents. As a result the strength of a characteristic will vary in the population in such a way as to give us commonly something like the familiar normal distribution curve. Children may be either better or worse than either parent. Children of the same parents may vary widely in capacity: some may be very strong and some very weak in the same inherited capacity. A child may be superior in one thing, as in adding numbers, while he is very poor in something else, as in spelling. He may have an excellent memory for visual forms and a very poor memory for colors.

The most fortunate child will get the best possible combination of determiners from both parents and may be a genius though neither parent is a genius, while the least fortunate child may have the opposite luck and may be subnormal.

Our next problem is to consider the effects of environmental factors on these native differences. The evidence from experimental biology indicates that the effects of the physical environment are greatest when the animal is youngest and growing fastest and that these effects decrease rapidly with increasing age. Since the human foetus grows for its first ten lunar months inside the body of the mother, it is exceptionally well protected from unfavorable environmental influences.

Biological theory says that evolution is the result of variation and natural selection. This means that the environment kills off those organisms not adequately adapted to it. This certainly is one of the major and undeniable influences of environment on individual differences. This would tend to raise the group average and to reduce its variability. There are also cases in which the individual is injured by the environment and survives in an impaired condition. However, at the present time, there are wide differences of opinion as to the importance of such en-

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vironmental factors in determining individual differences.

The more important question for us is: what are the effects of the psychological environment on individual differences in intelligence, in feelings, and in personality traits in general? Many studies have been made in the hope of throwing light on this problem. We shall consider briefly some of the results.

Newman, Freeman and Holzinger⁸ have studied supposedly identical twins who were separated most of the time during growth. The average difference in I.Q. found was about eight points. However, the average differences found for retests of the same individuals vary from about four to about seven points.⁹ The difference here is slight and is not statistically significant.

Several studies of foster children have been made to determine the effects of home environment on I.Q. These have usually shown a few points increase in I.Q. in the better environments. However, one complication which enters these studies is the fact that brighter parents tend to select brighter children for adoption as shown by tests given at the time of adoption. This and other complications make difficult the interpretation of results. We shall presently return to that problem.

Studies of the effect of nursery school training on the I.Q. have also been made. Some claims have been made of important and permanent improvements in I.Q. as a result of such training. In a carefully conducted study with siblings used as control, Page¹⁰ found no significant difference between the children attending nursery school and their siblings who did not attend.

Among the most interesting studies have been those of the effects of training children in taking mental tests. These have shown conclusively that limited amounts of training can result in great increases in I.Q.'s as determined by customary standards. Gates¹¹ reports one case of a child who reached, after limited training, the phenomenal I.Q. of 408! Yet probably no competent psychologist believes that such a limited period of training results in any appreciable increase in power to deal with new and

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different situations. How then are we to interpret experiments on the effects of training on the I.Q.?

Our first problem is one of definition. What is intelligence? Some think of it as *native* learning capacity. Others think of it simply as the ability to meet situations effectively, including the passing of tests which happen to be labeled "intelligence" tests.

As a matter of the fundamental logic of mental tests, performance is the result of two variables: heredity and environment. If the tests are to measure native differences, the environmental variable must be held constant. So if it is admitted that there has been a significant difference in the environment, it is not logically permissible to conclude that intelligence has been increased: rather the test has been invalidated. Certainly this is true in case of the studies of the effects of coaching in the taking of mental tests. It seems to hold in the other cases as well. If, however, the tests are not held to measure native differences, they become achievement tests and should be considered in that light.

In terms of modern educational psychology, the effects of training are considered under what is known as the transfer of training. According to the usual interpretation of transfer, no form of training brings about really general improvement of functions, partly because there are no general functions such as memory or reasoning power to improve; rather, training is more specific in its effects and transfers to other situations in a more limited way. On this basis, training does affect individual differences, sometimes to an enormous degree. Of two twins of equal capacity, one might grow up illiterate while the other might become an expert in mathematical physics. Our entire educational system is based on the assumption that training counts heavily in producing individual differences, but some like to make a distinction between differences in native capacity and differences in achievement, and it is the latter that are affected by education.

Scientifically accurate statements as to the effects of environment on emotions, attitudes, and personality characteristics are hardly possible at present, but probably most

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psychologists would hold that environment counts rather heavily in determining the nature of development in this area. Our attitudes and ideals seem to be influenced greatly by the social environment.

Applications to Education

Age differences have long been recognized in our schools in the systems of classification by grades. Now, however, we realize that there is a great overlapping of grades in achievement if the grades are based primarily on age. As a result we are now attempting to make better adjustments to individual differences. First we shall consider some of these at the elementary level and then at higher levels.

Flexible promotion has often been used to enable bright pupils to get ahead by skipping grades. This has often worked fairly well in the lower grades where no other method existed for dealing with bright pupils. However, it is an emergency measure and does little to solve the general problem.

When schools are large enough to permit it, children are often classified into groups of bright, average, and slow pupils. In some cases these three groups cover practically the same course of study but at different rates of speed. More often the groups are kept nominally at least in the same grades but are given different amounts of work. The slow group covers less work and is given more drill. The work is made more concrete and practical. The fast group covers much more material, including more difficult problems and with more opportunity for original work.

After about the fourth grade, students may be classified by achievement in different subjects instead of simply by I.Q. or general achievement. This is more effective because a given child may be superior in one subject, average in another, and inferior in another.

Special attention will need to be given to those with special disabilities and to those with very low general ability. There are many forms of special disabilities but

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particular attention needs to be given to those in sight and hearing, and in reading and arithmetic. In school systems large enough to afford them, psychologists with special training are employed to test and diagnose these cases and to prescribe suitable educational programs for them. They are taught in special rooms by specially trained teachers.

Alert teachers can do much to locate and help these cases. Tests of sight and hearing can be made without special equipment with sufficient accuracy to determine the child's ability to work under school conditions. Seating children on the front row when they have sensory difficulties will often help greatly to solve the problem.

Diagnostic tests in the school subjects need to be used to locate individual difficulties and attention needs to be given to the correction of these defects. "Application should be made at the point of error" is a most important principle of teaching.

Individualized instruction has been used in some schools. This is objectionable in that it loses the social value of group work. Yet in the hands of well trained teachers it does permit the most extreme attention to individual needs. In other cases a compromise is effected between class instruction and individualized instruction.

In American high schools and colleges the elective system offers a basis for great adjustments to individual differences. This involves a problem both of educational guidance and of vocational guidance.

Intelligent guidance is probably the most important contribution that can be made in the way of a more effective adjustment to individual differences in higher education, but it is very difficult to secure teachers with the technical information and the unbiased, impartial objectivity necessary for the best results. Teachers in general are much too prone to try to lure all good students, and perhaps others as well, into their own specialties.

High schools and colleges at times section students in particular subjects according to ability, but more often the chief variation is in student load. Brighter students may be permitted to carry more subjects and so to finish in a shorter time. Project methods are often used and

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these do permit variation in the work done by different students but the net results of the method are often open to question.

Special provision for superior students is made in some colleges and universities by programs including honors work. These provide for individual projects and for tutorial instruction with special final examinations. Their value is often very great: their chief limitation is their cost.

It is also important even at the college level to make provisions for those with special disabilities in sight, in hearing, in reading, in English, and perhaps in other fields.

There are other very important aspects of the problem of applying individual differences in the field of education. Age differences in maturational level must be considered in order to construct a satisfactory curriculum. Individual differences in teachers are important in numerous ways. Tests and marks or grades cannot be handled fairly without an understanding of individual differences in several complex ways as related to both students and teachers.

Finally, the effective teacher must try to combine the best of group instructional techniques with careful attention to individual needs.

NOTES ON THE CHAPTER

1. See H. M. Vernon, *Variation in Animals and Plants* (New York: Henry Holt and Company, 1902), pp. 1-71.
2. L. M. Terman, *The Intelligence of School Children* (Boston: Houghton Mifflin Company, 1919), pp. 30-91.
3. E. T. Sullivan, W. W. Clark and E. W. Tiegs, *The California Test of Mental Maturity* (Los Angeles: California Test Bureau, 1942).
4. David Wechsler, *The Measurement of Adult Intelligence* (Baltimore: Williams and Wilkins, 1941).
5. J. Clark L. Hull, "Variability in Amount of Different Traits Possessed by the Individual," *Journal of Educational Psychology*, XVIII (1927), 97-106.
6. See Fred Brown, "The Significance of the IQ Variability in Relation to Age on the Revised Stanford-Binet Scale," *Journal of Genetic Psychology*, LXIII (1943), 177-181.
7. See R. S. Ellis, "A Comparison of the Scores of College Freshmen and Seniors on Psychological Tests," *School and Society*, XXIII (1926), 310-312.
8. H. H. Newman, F. N. Freeman and K. J. Holzinger, *Twins: A Study of Heredity and Environment* (Chicago: University of Chicago Press, 1937).

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9. See G. D. Stoddard, *The Meaning of Intelligence* (New York: The Macmillan Company, 1943), pp. 218-227.
10. J. D. Page, "The Effect of Nursery School Attendance upon Subsequent IQ," *Journal of Psychology* X (1940), 221-230.
11. A. I. Gates, "The Unreliability of M.A. and I.Q. Based on Group Tests of General Mental Ability," *Journal of Applied Psychology*, VII (1923), 93-100.

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CHAPTER XIII

THE PROBLEM OF FORMAL DISCIPLINE

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Within the past quarter of a century there has been considerable dispute over the value of formal education. This is particularly true of certain aspects of it growing out of the doctrine of formal discipline. For many years that doctrine had been practically the sole guide for educators in curriculum making and methods of teaching. Even as late as fifty years ago it was still serving as a dominant controlling factor, though no longer holding so high a place as in earlier days. Thereafter, however, its value by rather rapid stages came under increasing challenge until, except in a few isolated places, it was no longer acceptable. Now there is a powerful, though numerically limited, effort to revive it. In some places the attempt is so marked as to indicate a desire to bring the doctrine back, as much as possible, to its eighteenth century pristine form.¹

The effort in this chapter will be to examine the record in terms of history, opinion, and experiment to find in what degree the defendants and opponents of formal discipline are correct. To this end, the attempt will be made to present in an unbiased and impartial manner both sides of the argument so that the reader may draw his own conclusions, though as occasion requires the writer will not hesitate to present his personal views and state his own opinion. This procedure is employed because all too often

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the opponents as well as the proponents of formal discipline act, in both writing and practice, as though they were lawyers trying to prove a case rather than scientists endeavoring to disclose the truth. The aim here, therefore, is to present the best that has been done and thought on both sides of the issue, in the hope of revealing the most serviceable basis for carrying forward constructive thinking.

Function of School and Teacher

From the dawn of human history the adult has made it his obligation to help youth gain possession of the social heritage. In primitive times the heritage was simple and could be acquired by gradual degrees in the normal course of events as the infant advanced gradually to maturity. As society became more complex, however, the process of transmission grew increasingly more difficult until it became necessary to set up special agencies for this purpose and to employ specially prepared people to see that it was properly served.

Society's agency for performing the educational function is the school. It is intended to provide in an organized and efficient manner the education which it is believed will prove effective in the life of the learner. The words "efficient" and "effective" are here used not just for variety of expression but to indicate a real difference. "Efficient" is used to indicate that the work should be carried on with the least expenditure of energy on the part of both teacher and pupil, in the shortest space of time, and at the smallest financial cost. The word "effective" is intended to emphasize the idea that economy in energy, time, and cost shall not be achieved at the expense of, or be permitted to take precedence over, the educational end product desired, namely individual and social competence.

Always, as has been implied, the compelling motive of the school as an agency of society has been to prepare youth for the life they as adults are likely to lead. Since, however, the school is only one of many sources from which youth draw their education, schools have properly

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tended to serve a residual function.² This assumes that the schools will devote themselves primarily to those educational needs not satisfactorily served elsewhere.

To the above assumption about the purpose of the school practically all educators agree, but what is needed by way of preparation, how many years may be allowed for schooling, and how the school shall be administered are matters upon which there is considerable difference of opinion and great uncertainty. In colonial days, what education the child needed to obtain through the school could easily be decided. Life was relatively simple and there was little doubt in the vast majority of cases as to what the boy or girl would do as an adult. It was farming for the boy and making a home for the girl. But today who can venture to predict what later in life the child will do, except in a general way? And even that can be done only with considerable doubt.

In America, as the shift of the population from rural to urban grew, the importance of the school increased in proportion, the curriculum steadily took in more subjects, and the method became more formalized. The natural way of learning by doing, which consisted largely of copying the adults, gave way to the unnatural way of learning by studying, which has consisted primarily of memorizing. Education came to be regarded, therefore, as something the teacher does to the child through a process of give and take, in which the teacher engages in the giving and the learner in the taking. All this is to be done at the will and pleasure of the teacher in line with what happens to be the currently accepted purpose of the school and without regard to the interests, needs, or desires of the child. In some places this idea still prevails and continues to furnish the guide to the educator in performing his duties.

The futility of trying to cover in the school every detailed phase of the child's requirements, namely, all the individual bits of knowledge, necessary skills and desirable attitudes, became apparent as the demand upon the school increased. And the fallacy of disregarding the changing nature of the growing child, particularly his growing mental powers, eventually dawned upon educators and led

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to an attempt to correct the situation. This attempt as a deliberate policy first took shape in the application of what came to be known as the doctrine of formal discipline, the doctrine from which stems the subject matter embraced in this chapter.

What is Formal Discipline?

To discipline, etymologically, means to teach. As ordinarily used the word implies something more, namely, to teach according to a plan designed to achieve a preconceived specific end. When the method of achieving the end is rather definitely fixed it comes to be known as formal. But the term formal discipline connotes more than what would be implied by the juncture of its two components as just defined. From its early history, the phrase formal discipline has referred not to the form of the subject, but to the forming of the mind. Formal discipline is predicated on two things, namely, an interpretation of mind, and a method of education. The interpretation of mind goes by the name of faculty psychology. The method of education is conceived to be general molding or strengthening of the faculties of which the mind is said to be composed.

The theory of faculty psychology is that mental traits and characteristics such as attention, reasoning, imagination, temperament, will, and memory are discrete powers or faculties of the mind, each a separate mental entity. It is held that these entities are most largely, if not wholly, independent of each other, and that each possesses a definite unity. It is assumed that all these traits and characteristics are possessed by each individual in various degrees of quality and quantity. It is further assumed that any trait or characteristic, being poor, average, or good in any one situation, will be poor, average, or good in all situations both in school and out of school.

What is assumed to be necessary for molding or strengthening of a faculty is to find the most suitable means of performing the training task. Once improved, so goes the theory, whatever has been gained becomes immediately available for use wherever and whenever the particular

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faculty or power is needed or employed. Thus, for example, if it is imagination which is to be developed, exercising and improving it through literature would make the trainee more effective in imagination also in the field of mechanics, and the improvement in the latter will be affected to the extent that the training in literature had been successful. This improvement process is called in psychology transfer of training. To what extent this theory is true is of great importance for teachers and of crucial concern to the school.

The concepts of faculty psychology and of transfer of training just described together undergird the theory of formal discipline and form the foundation of the doctrine of formal discipline. The doctrine implies that it is not the content of the subject or the particular act that is important; rather, as has been noted, it is the forming of the mind. It is not surprising to find, therefore, that the real spirit of the formal disciplinary theory is expressed in the single significant though much misapplied term *discipline*.

Many and varied are the claims that have been made in the name of formal discipline by its advocates. On the strength of the theory back of it mathematics has been regarded as a fine tool for sharpening the mind; literature has been said to have unusual value for developing imagination; geometry has been considered a good means of improving logical reasoning; science has been held up as a most beneficial means of perfecting judgment; and language has been declared to be serviceable as a superior device for cultivating memory. One could go on to show in like manner how each subject has been conceived to possess value not merely for its content but also and often more so for some certain mental disciplinary end. The data to be presented in this chapter should help answer the questions: How sound is this theory? and, How true are these claims?

General Historical Background of Formal Discipline

The concept of formal discipline has come down to us from centuries ago when first subjects, originally learned

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because of their utilitarian value, continued to be studied long after they had lost that value.³ To justify this persistence the tendency has been to point to the precious discipline these subjects are said to afford.

Among the early Greeks, and for some centuries after, the favorite studies were the more formal ones of the trivium—grammar, rhetoric, and dialectic. Later there were added to these the subjects of the quadrivium—arithmetic, geometry, music, and astronomy.⁴ The combined trivium and quadrivium—disciplines they were in time called—came to be known as the “Seven Liberal Arts.” They comprise the so-called classical tradition and, like other subjects later characterized as liberal, have been regarded by many to comprehend the educational essentials that must be studied even though they might be forgotten by the learner soon after.

The present day advocates of the classical tradition, though readily admitting that the ancient culture has little or no direct practical value in modern times, defend the classical subjects in the schools on two main grounds. One is that these subjects are the mark of the educated and learned man, and the other, that nothing is better suited to cultivate and develop the various mental powers.

Arguments of this type to justify the place of subjects in the school curriculum had become almost universal by the eighteenth century and continued prominent up to at least the last decade of the nineteenth century. This holds true for all school levels, and especially for secondary and college education. The celebrated nineteenth century English philosopher, Herbert Spencer, an ardent proponent for the introduction of science in the schools, furnishes a striking example. He relied upon the formal disciplinary argument for his final supporting justification.⁵ In assigning a higher value to science as a guide to living, while condemning fiercely the traditional, classical curriculum of his time, he employed in support of scientific subjects the very contention used by the classicists in defense of their subjects.

The formal disciplinary movement as such may be said to have had its definite beginning in the seventeenth cen-

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tury, though there had been signs of such a tendency long before that time. During the Middle Ages and the early period of humanism, Latin, for example, the subject destined to become later the disciplinary medium supreme, was already taking its place as a recognized source of mental discipline. Yet even in those days it was still being taught primarily for its utilitarian value. It was still the international language, *i.e.*, the general communication medium of the church, of diplomacy, of commerce, and, most significant, of all higher learning. But when, because of the development and employment of vernacular language in the schools and the greater use of translations in communication and learning, the utilitarian study of Latin had largely declined, appeal was made in behalf of the subject on the ground of its disciplinary value. The argument was that it yields results out of all proportion to the effort expended, and gives general power that may be applied in any direction. Soon similar claims were made also for mathematics and Greek. It is natural, therefore, that formal disciplinarians would insist that every one should be required to take these all-important studies regardless of interest, ability, or purpose in life.

What gave the disciplinary movement its impetus in the seventeenth century was the work of the eminent English philosopher, political writer, and teacher, John Locke. It was his writing⁶ that furnished the basis for the first systematic expression that led to the establishment of the doctrine of formal discipline. Locke believed in the efficacy of the classics but not in the narrow humanism that grew out of the Greek and Roman forms which came into new vogue during the Renaissance. He believed in the study of sciences and the application of the scientific method but not in encyclopedic knowledge that was popular at the time. He insisted that knowing what other men have thought is of relatively little account. The primary idea and key to his thought on education is expressed in the concept of discipline. This holds true for him whether he is talking of intellectual training, moral training, or physical training. Intellectual training, he asserts, is to be obtained through mathematics, moral training through

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the control of desires by reason, and physical training through the "hardening process."

In the essay, *Some Thoughts Concerning Education*, called briefly *Thoughts*, Locke set forth at some length and with much detail the concept of education as a disciplinary process. Since this is the work by which his educational position is often exclusively judged, it should be pointed out that *Thoughts* was by no means intended as an educational treatise. It was written solely as advice to a friend on how to bring up his son as a gentleman. The method proposed is tutorial. The assumption is that education can shape the pupil according to desire. The pupil is conceived to have a mind like a blank tablet. The most important purpose is held to be the formation of useful habits rather than the acquisition of knowledge. This opinion is reinforced by his frequent assertion that though excellence is attainable by virtue of natural endowment, most men become what they are by virtue of their education, that is, by virtue of training and discipline.

It is Locke's firm conviction that not the thing learned but the process of learning is important. Education to him means developing the healthy body, establishing good habits, creating moral character, and training the mind. The mind training is to be done through work with studies which were selected because of their disciplinary value. This he justified by asserting that, "As the strength of the body lies chiefly in being able to endure hardships, so also does that of the mind." The aim of education for him being largely the development of good thinking and the employment of reason, he declared that this must be achieved through the proper discipline of the mind. That, according to him, could not be realized, however, merely by the customary method of studying and learning; it calls for drill of the powers of the mind by working in studies selected particularly for that purpose.

Nineteenth Century Effects of the Movement

Locke's work and the movement for formal discipline it stimulated had a profound influence on educational theory

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and practice not only immediately following his day and during the eighteenth century but also down through the nineteenth. The support for the doctrine during the eighteenth and the first half of the nineteenth centuries came chiefly from the classicists. Later, however, others began to express their approval and support. The philosopher, Spencer, previously mentioned, was one of the earliest influential non-classicists to support the formal disciplinary doctrine as a sound basis for determining educational curriculum and teaching procedure. He expressed himself on this subject in no uncertain terms in his famous essay, now an educational classic, *What Knowledge Is of Most Worth?* There he strongly argued for the superior value of scientific knowledge over the traditional classics which at the time were strongly entrenched not only in the schools of his own country and on the continent of Europe but also in America. Besides arguing that, "We have to change the relative value for different kinds of knowledge for purposes of discipline," he contended that, "The education of most value for guidance must at the same time be the education of most value for discipline."⁸

It was during the latter part of the century that others began to argue for their favorite subjects on the ground of the disciplinary value inherent therein. Some of the subjects so justified are far removed in content, function, and procedure from the classics. Outstanding examples are music and manual training. In the endeavor to justify the place of music in the curriculum on the ground of its disciplinary value, the advocates contended that it is of special worth for developing the abilities to observe, memorize, and reason. And the advocates of manual training contended that by reason of the accuracy it exacts and the measurement it requires, manual training produces love of truth and leads to uprightness of character.

Though in America toward the close of the nineteenth century formal education was clearly on the way to lose its grip on educational theory and practice, it still retained considerable prominent support. Even as late as the early 'nineties educational leaders were still accepting the doctrine as a guide in curriculum making and teaching

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method. It had, for instance, the approval of the celebrated National Education Association's "Committee of Ten." The Committee's position was clearly expressed in its famous 1893 report on secondary school studies. Soon after its publication this report became, and for many years remained, the point of departure for educational discussions and the basis for evaluation of school work. Though noting that only a small proportion of secondary school pupils go on to college, the report stressed the idea that no difference need be made for those pupils not headed for college. That was justified on the ground that for educational purposes no one subject is more valuable than any other provided the teaching procedure used is equally earnest and the pupil's work duly serious. This theory of equivalent educational value is based on that aspect of the doctrine of formal discipline which asserts it is not the content of the curriculum that counts so much as the intensity of application in studying employed by the pupils. One need not be surprised to find, therefore, that the committee stressed the formal aspect of those subjects which at that time constituted practically the whole of the curriculum, namely, ancient and modern languages, mathematics, history, the sciences, and even English.

The Situation Today

In spite of the strong opposition that has developed to the theory of formal discipline, belief in it is by no means at an end even to this day. There are many people still, some in high places in and out of education, who strongly maintain and stoutly defend the conviction, though they may not so express it, that the doctrine of formal discipline should guide the school and college curriculum and determine the teaching procedures to be employed. Articles appearing during recent years in current literature, both popular and professional, as well as newspaper editorials and statements by columnists in the daily press, show indisputable evidence of the hold the formal disciplinary doctrine still retains.

A statement by the president of one of our leading uni-

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versities well illustrates what some men in prominent educational positions still think of the disciplinary doctrine. He tells the reader that, "The intellectual virtues are habits resulting from the training of intellectual powers." And he goes on to assert:

"An intellect properly disciplined, an intellect properly habituated, is an intellect able to operate well in any field. An education that consists of the cultivation of the intellectual virtues, therefore, is the most useful education, whether the student is destined for a life of contemplation or a life of action." ⁹

Now it is come to pass that there is sweeping over America a movement seemingly designed to bring formal discipline back into prominence. This is particularly in evidence in institutions of higher learning through renewed emphasis on subjects regarded as liberal arts and cultural. One of the earliest prominent attempts in this direction was made at the University of Wisconsin with the establishment of the Experimental College¹⁰ in 1926. Another effort in the same direction is found in Swarthmore College, Swarthmore, Pennsylvania.¹¹ The latest, and at present most widely discussed full scale attempt to put formal discipline into operation, is that being conducted at St. John's College in Annapolis, Maryland.¹² This school has thrown completely overboard the traditional curriculum and customary teaching procedures. It has substituted a long list of books, about one hundred in number, to be read, discussed and digested, and is using educational procedures brought over from traditional Oxford in England.

Current Aims of Education

Having now investigated the doctrine of formal discipline, sketched its history, seen how it has been applied by its chief exponents—the advocates of the liberal arts—and by others, we are ready to evaluate this type of education in terms of the current aims of education in America, and in light of the modern concept of how learning is achieved.

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There is no need at this point to rehearse what has already been pointed out as to the general purpose of education and the specific function of the school. Suffice it to restate that the purpose, however worded, invariably implies preparation of youth to carry on effectively their future responsibilities and to live successfully their parts, whatever those may come to be, in the society and the culture supporting the school. There can be no doubt that always, consciously or unconsciously, the attempt on the part of the adults of any social group is to shape the development of the oncoming generation in accordance with their own ideals of life. It is to achieve this end that the school has been created. The school's task has been, therefore, and continues to be, to realize its assigned educational objective in the most economical way and effective manner.

Those who are responsible for American education must, there can be no doubt, interpret the general aim of education in terms of American democratic ideals and needs. That this is not generally done is one of the reasons for the doubt which is so frequently cast upon the efficacy of our educational work. All too often the philosopher's statement that the aim of education is to transmit the heritage of the race is left in these broad terms and, therefore, is variously interpreted and even at times misinterpreted. True, this statement, broadly speaking, is correct, but in reality it means that the school should transmit the particular culture which is peculiar to the societal group and which distinguishes it. To the philosophical realist in education this calls for an education that aims to adjust the individual to the society into which he is born and probably will live. To the philosophical pragmatist, on the contrary, it requires an education designed to provide for growth of the individual in power to meet life situations. The implication in the latter position is that we can not know exactly the character of the future society. The Education Policies Commission, translating its philosophy of education in America in terms of objectives, states that American education should foster (1) Self Realization, (2) Human Relationship, (3) Economic Efficiency, and (4) Civic Responsibility.¹³

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How to Achieve the Educational Aim

There are two diametrically opposed concepts as to how the aims of education may be achieved. One concept would place reliance on general training, the other, on more specific education. It is this disagreement which creates the difference of opinion about the value of formal discipline. The formal disciplinarians assert that it is sufficient to train the mind and strengthen the faculties. The anti-disciplinarians maintain that the aim, content, method, and management of education need to be different in different societies and vary according to diversities in cultures. It is held that education, however well suited to one type of culture, is by no means necessarily, therefore, suited to any other. Certainly the education suited to the culture of the ancient world is not, the anti-disciplinarians maintain, suited to the culture of modern time any more than is the education appropriate for modern communistic Russia appropriate for present day democratic America. And even in the same country, it is asserted, the education that may have been at one time most appropriate, may by reason of economic and social changes become quite unsuited later.

In attempting to solve the problem of what kind of education to provide, either of two approaches may be employed. One of these is the intuitive approach. It relies upon pure argument to prove its case and feels satisfied with this means of establishing its position. For those who are content with the intuitive procedure, what philosophers have said, men of letters have asserted, and current writers advocate is considered sufficient support. The custom is for each proponent to express his own personal views or draw on the words of earlier writers for substantiating evidence and proof of worth.¹⁴ The other is the experimental approach. It draws its conclusions from the results of controlled experiments that are designed to produce objective evidence. Upon such evidence alone, to the extent that this is possible, are the proponents of this approach content to rely. Since the intuitive approach depends upon accepting at the outset certain premises, postulates, or just assertions of the writer himself or of others, it will be necessary for

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the reader who would delve into the point of view growing out of this procedure to peruse some of the several books and articles that take this method of drawing conclusions.¹⁵

Transfer of Training

Numerous experiments have been conducted designed to test out the theory of transfer. They have covered various aspects of the subject ranging from the simplest motor type of transfer to the most complex mental type, as well as transfer of attitude and the like. Most of the studies have been conducted with meticulous care as to scientific procedure, and, as a rule, those who conducted them have employed great caution in drawing conclusions and exercised considerable reserve in making claims. But some investigators have been in error not alone in the matter of procedure but also in the interpretation of results. These facts may explain in part the differences found in experimental outcomes.

There are a number of important deductions growing out of the finding of investigators working in the field of transfer. Following, briefly stated, are some which have a direct bearing on the problem of this chapter.¹⁶

Improvement in one field of knowledge or pattern of action may transfer to certain other fields, may have a neutral effect on many others, or, in certain cases, may actually interfere in the transfer. What it is that transfers may be any one or more of several things. They are information or knowledge, techniques of working, attitudes or ideals, or some combination of these.

The more the practiced and the unpracticed functions are alike the greater are the possibilities for transfer. The effectiveness of likeness so far as transfer is concerned is dependent upon the learner's awareness that there are common components in the learning situation and the situation to which transfer is desired.

Rarely does the transfer occur in considerable amount. In proportion it is almost always nearer zero than one-hundred percent. The amount varies for different individuals in the same situations, and for the same individual in

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different situations and in different fields. Factors which condition the quantity of transfer are the nature and amount of previous experience, the degree of interest in the situation, the force of prevailing incentives, and particularly the desire for transfer. Other influencing factors are the intelligence of the individual and his age. Children have the advantage of greater susceptibility to new impressions, whereas adults have the benefit of greater experience and, therefore, see relationships more readily.

Transfer takes place most effectively when it is one of the conscious objectives of both the teacher and the pupil, that is, when they both deliberately work for it. This condition is necessary because, contrary to most frequent assumption, transfer does not take place spontaneously.

Studies of transfer indicate the great importance of generalization during the learning process. This holds true for everything that transfers, whether it be subject matter, methods of working, or attitudes toward what is being done. It might be well to add here by way of illustration and for special emphasis, that transfer is considerably enhanced by the development of methods of learning and techniques of study.

Transfer to be achieved requires frequent and varied application of the materials or reactions learned. For fixation, repetition is necessary; and for broad application a wide variety of situations must be introduced. To these ends the teacher needs to help the pupil summarize and integrate the learning. This can be done by employing general surveys as occasion demands and providing varying situations for new applications.

All school subjects and activities have potentialities for transfer. The amount of transfer accruing from any subject is materially affected by the manner in which it is taught and the kind of situation created for achieving the transfer. Experiments in transfer of training make it evident that school situations should be made as nearly real life situations as possible, for as frequently quoted by writers on the subject, "We learn what we live in the degree that we live it."

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Summary Remarks

From what has been presented in this chapter it becomes evident that the doctrine of formal discipline can no longer be accepted as a whole. Only certain phases of that part of it which relates to transfer of training can now be considered sound. Training the mind appears to be not a matter of developing the several independent faculties of which the disciplinarians assume the mind is composed, but a process of increasing mental ability. Such increase is a unitary affair and is effected through the broadening of the mental horizon. Among the several factors which account for the broadening are environmental contacts, progress in the ability to use language and other thought symbols, and improvement in sensory means of perceptions. It must be added, however, that psychologists are not wholly in agreement on at least two matters, namely, the conditions under which transfer takes place, and the amount that can be transferred.

The theory of mental discipline has led to a curriculum that has been based upon age and tradition of subject matter and method, rather than on interest and applicability of these. Consequently the classical languages, ancient literature, and abstract mathematics have too often kept out the modern languages, current literature, and practical mathematics. Usefulness in the practical affairs of life has been regarded unimportant as compared to mental training. Therefore, since Latin, Greek, and mathematics are assumed to provide such training, they must, it has been contended, form the basis of the curriculum. It is not so much that these subjects contain matter which needs to be known that counts as that they are difficult.

The opponents of this educational theory reject the mental training concept and would replace it with a concept of mental growth. They assert that the formal disciplinarian's assumptions about the cause of mental improvement is at variance with modern psychology. The disciplinarian assumes that the critical determining factor is the nature of the subject matter content. The psychologists insist, on the contrary, that it is what the learner does to

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and with the subject matter that is the important thing. The contention is that mental growth comes not so much from absorbing the finished product of others as from going through the process by which the product was obtained. In line with this conception the learner begins with particulars and works toward generalizations. Education according to this view, therefore, is mostly incidental at first and can become increasingly more organized as the pupil advances toward maturity. In the kindergarten, then, learning may be almost totally informal, whereas in the college it can become primarily formal.

The importance of the subject matter of this chapter to education cannot be questioned, for what the school and the individual teacher believe about formal discipline materially affects curriculum making and teaching method. Those who hold to the old theory will be inclined to defend the privileged position of certain subjects in the curriculum and justify them as requirements for all students on the claim that they discipline the mind. Such persons would be apt to justify, also, deliberately increasing the natural difficulty of the subject on the assumption that the harder the task the more disciplined the mind becomes in attempting to meet it. In arguing for the disciplinary value of the subject itself, these persons ignore the effect of interest and motivation in making the task of learning easier, an effect they do not want because it is contended the outcome will be less discipline. For the same reason modern methods of teaching will be ignored or resisted.

The school's concern with the problem of transfer of training does not derive from its desire mainly to discover the cause of transfer. Rather it grows from a desire to find out how to get the learner to obtain the greatest value possible from his school experiences by gaining ability to make the largest possible application of them. This can be achieved by giving due heed to the variety of conditions that make for positive transfer. Among these conditions are the type of instruction employed, the method of learning used, the attitude taken at the time toward transfer, the presence of a conscious desire in this direction, and the effort to generalize experiences. Perhaps the most signifi-

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cant related conclusion one can draw from experimental evidence is that to achieve the best results the teacher and pupils must both pay attention to the conditions of transfer and deliberately strive to increase the transfer value. To this end one of the most important functions of the school is to teach the technique of study that may be employed in attacking many learning situations.

Though there is common agreement that transfer does take place, there is considerable difference of opinion regarding how much occurs. It is known to vary with the individual, the method of learning, and the type of teaching. Frequently the amount is preciously little, and on rare occasion surprisingly large. Generally, it is less than is expected or hoped for. Apparently the more meaningful the learning the more transfer can be expected, for transfer seems to depend on understanding, since understanding makes for wide application. Finally, it needs to be pointed out again, and this cannot be emphasized too strongly, transfer does not occur automatically. The more deliberate the effort in this direction, therefore, the greater the results.

The tendency in educational theorizing has been, and still is, to swing first to one extreme and then to the very opposite. At one time, as has been indicated, formal discipline was the sole guide to curriculum making, teaching method, and classroom management. Then came the time when evidences were piled up to expose its weaknesses. And with the accumulation of such evidences came the disposition to discard formal discipline entirely and denounce it as a false theory. Now, as was said at the beginning of this chapter, there is a strong movement to revive it.

Conclusions drawn on the basis of scientifically secured facts lead to the inevitable opinion that formal discipline is neither all white nor all black. No reputable psychologists today believe in that aspect of the theory which is predicated on faculty psychology. Nor would such psychologists wholly deny the other phase of the theory which is predicated on transfer of training. The evidences of transfer experimentally secured and commonly observed

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are too overwhelming to be denied. Were transfer not possible, and were it not to occur, our schools would be largely valueless, for then the learner would acquire from his schooling only and exactly that upon which he worked, and nothing more. How futile school work would be in that case is too obvious to need verification. The problem then of formal discipline in twentieth century American education is how to conduct the school, organize its curriculum, and plan its methods so as to provide for the individual the greatest possibilities and opportunities for transferring his learning to the widest range and largest number of life situations.

NOTES ON THE CHAPTER

1. Mark Van Doren, *Liberal Education* (New York: Henry Holt and Company 1943), is indicative of this trend.
2. Charles C. Peters, *Foundations of Educational Sociology* (New York: The Macmillan Company, 1930), chap. XIX.
3. Read H.R.W. Benjamin's, *The Saber-Tooth Curriculum* (New York: McGraw-Hill Book Company, 1939), for a facetious illustration and explanation.
4. Note that the trivium embraces language studies and the quadrivium mathematical studies. Music as the ancient Greeks used the term is properly in the latter category.
5. Herbert Spencer, *Education: Intellectual, Moral and Physical* (New York: D. Appleton and Company, copyright 1860, 1897 issue), pp. 84-93.
6. His pronouncements are to be found in three significant essays, *Essays Concerning Human Understanding* (1690), *Some Thoughts Concerning Learning* (1693), and *Coduct of Understanding* (1706), posthumous.
7. Herbert Spencer, *op. cit.*, chap. I, pp. 21-96. Appeared first in the *Westminster Review*.
8. *Ibid.*, p. 85.
9. Robert M. Hutchins, *The Higher Learning in America* (New Haven: Yale University Press, 1936), page 64. For a critique of Hutchins, see Harry D. Gideonse, *The Higher Learning in a Democracy* (New York: Farrar and Rinehart, 1937).
10. Glenn Frank, "The Experimental College," *School and Society*, XXVI (August 6, 1927), 164-165.
11. Swarthmore College Faculty, *An Adventure in Education* (New York: The Macmillan Company, 1941).
12. Catalogue of St. John's College (Annapolis, Maryland: January 1944).
13. The Educational Policies Commission, *The Purpose of Education in American Democracy* (Washington: National Education Association, 1938).
14. A good example is Mark Van Doren's *Liberal Education*, previously cited.
15. For references see *The Education Index*, under "Formal Discipline," "Formal Education," and "Transfer of Training."

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16. The reader desiring to study the matter further is referred to the references given below.

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CHAPTER XIV

EVALUATION OF LEARNING¹

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The Nature of Measurement

A child may say that the schoolhouse is a long way down the road, but the surveyor says it is 1.96 miles. Measurement is always quantitative, never qualitative. Measurement deals with units of weight, distance, volume, temperature, intelligence, facts in history, skill in hand writing, and so on. Measurement is objective; two or more skilled people cannot truly measure the same thing and derive different results. Measurement is quantitative appraisal of conditions we have already foreseen; one cannot measure that which he does not know to exist; measurement tells us that there exists so much of the thing we expected to find. Thus, when we give an intelligence test to Mary, we learn only that Mary has so many units of the thing we have defined in advance as mental age. When Professor Smith gives his Chemistry 12A an objective test, all he discovers is how each member of his class responds to certain objective items which he selected. When Professor Smith translates those scores into grades, he is going beyond measurement; he is evaluating.

The Nature of Evaluation

When one says that Jane is a good wife, that Senator

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Blank's record in Congress was disgraceful, that one really got a lot out of Professor Dill's course, one is giving an evaluation. In education, total evaluation is total appraisal of *all* the educational outcomes of learning. Unfortunately, many measurement experts imply that evaluation is limited to the teacher's *measurement* of educational objectives. By their very nature, objectives must be preconceived, and many educational outcomes in the learner are not preconceived by the teacher. Thus few poor teachers ever realize that one educational outcome of their teaching is a student's dislike for the entire subject matter of the course. We should, therefore, conceive evaluation in terms of the learner, and define it, broadly, as an appraisal of *all* the outcomes of learning, whether good or bad, whether preconceived by the teacher or not, whether listed among the teacher's objectives or never dreamed of as end results.

Learner-centered evaluation. In the broad, learner-centered sense, evaluation includes not only the results of tests, scales, inventories, time samples, ratings, and all the other teacher-conceived devices and gadgets; it includes, also, the learner's own estimates. Some of these estimates of the learner are objective; as in the case of the college student of statistics who said that the most important learning he derived from a discussion on probability was a set of rules for rolling dice. But most of the learner's estimates are subjective, likes or dislikes for the work or a phase of the work, tolerances and prejudices, intellectual curiosities and boredom, and so on *ad infinitum*. Some of the student estimates are immediate, made during or right after the class discussion or lecture; many, however, are realized by the learner only after years have elapsed and subsequent experience has shown him how much he owes to Miss Green or Professor Jones.

To make any serious attempt to organize a program of evaluation *in its broad sense*, to even try to write a chapter on how it might be done, will be wasted time until we have more and better techniques than we have at present. We should never forget, however, that the learner's evaluation is the truly significant evaluation. We should never forget that, in most cases, the learner's estimate of value of what

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he is getting is right, regardless of what his teacher may think or grade. Finally, we should make every effort to help the student evaluate what he is learning, and to modify our direction of his learning in accordance.

Teacher-centered evaluation. In this chapter, evaluation is dealt with only in its narrower sense. To be practical, we must limit ourselves to the teacher-conceived means of appraising as many as possible of the varied outcomes of learning. A lion's share of the chapter is given to the test phase of evaluation, simply because our tests are more numerous, more scientifically constructed, and far more dependable. So little time and effort have been given to the qualitative aspects of evaluation, that they are yet highly subjective, yet so lacking in reliability that they must be used with caution. It cannot be overstressed, however, that they should be used. Man is a piece of biology, a living, breathing, changing organism, not a collection of atoms moved by laws of physical science. The whole man is not exactly equal to the sum of his parts, as some of our earlier authorities in educational testing would have had us believe; consequently the program of evaluation that does not go beyond exact measurements is one for robots only.

The Place of Objectives in Evaluation

To evaluate adequately the outcomes of learning is to appraise the learner's educational growth or progress toward some end or ends. It is axiomatic that every teacher who evaluates a learner's progress does so in terms of goals or objectives. To give a learner a grade of "C," "10 per cent," or "Improving"; to pass or fail a pupil, or merely to tell a child's mother that he is getting along well in school—none of these is possible except in terms of certain educational ends toward which the learner is being guided. Unfortunately, most teachers have never clearly defined their educational ends; they make evaluations in terms of goals that are vague, incomplete, trivial, and often so false that if their eyes were opened to what they are actually doing, even the most callous would be horrified.

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Many college professors have evaluated a student's work—by giving it a grade—on the basis of how the “curve” should look, and with blind stupidity have defended their marking with the statement that there have to be some failures, that there could be only so many “A” grades, etc. In such a case, our professor's goal for his students is primarily that of having them fit themselves nicely into a “curve.” Many an elementary school teacher evaluates little Ellen's arithmetic in terms of Ellen's father, who is on the school board. Or often Jimmy is passed because he tries so hard. Or because he is so courteous and neat.

What are the goals of these teachers? What objectives do they use in evaluating the progress of their pupils? Or, have we erred by confusing evaluation with grading? Perhaps grades are meaningless and should be abolished. *We cannot, however, abolish evaluation without abolishing teaching*, for only by evaluating can we direct the course of learning. It follows that effective evaluation, as well as effective teaching, depends pretty largely upon the clarity and the detail with which the teacher outlines and follows the goals set for the learner.

If the goal of the college history professor is simply student memorization of historical data, his task of evaluation is a simple one. If the elementary school teacher's chief goal is to have pupils master the facts, principles, and processes of the three-R sort of thing, her evaluation process is likewise simple. If, however, either the professor or the schoolma'am is striving toward such learner goals as intellectual curiosity, tolerance, understanding of other peoples, ability to cooperate effectively with others, and dozens of other social, esthetic, ethical, and intellectual ends, then the task of evaluating growth toward these objectives becomes a highly complex affair, far beyond the giving of tests of facts, principles, and skills. In summary, *the first step in an evaluation program is the establishing of the general and specific learner goals sought.*

Limitations of Evaluation

Types of learnings. In every school situation, from the

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first grade through the graduate divisions of a university, the learner derives three kinds of educational outcomes:

1. *Direct learnings.* Those more or less tangible facts, principles, processes, skills, etc. that are an integral and accepted part of the content of the subject, unit of work, course, or what not. Thus, the ability to add integers is a direct learning outcome of the arithmetic class.

2. *Connected learnings.* Those more or less tangible facts, principles, processes, skills, etc. that *are not* an integral and accepted part of the particular subject, unit of work, course, or what not, but which are highly valuable, both in themselves and in the light they throw upon the regular subject matter. Thus some knowledge of English history should be one connected learning outcome of a high school course in English literature.

3. *Attendant learnings.* Those more or less intangible learnings that accompany every learning situation; the interest and boredom, the fears and likings, the intellectual curiosities, methods of problem attack, appreciation, social attitudes, moral attitudes, facility at cooperation, training in group leadership, and a host of others.

Evaluation of direct learning. For years educators have spent endless amounts of time and effort in developing means of evaluating direct learnings. Our books on educational measurements can be counted by scores; the articles, monographs, studies, and other published and unpublished manuscripts by the thousands. McCall lists 34 closely printed pages of tests on file in the Guidance Laboratory at Teachers College, Columbia University.² That hundreds of these tests and scales have little value should not obscure the fact that many others are highly satisfactory measures.

Direct learnings are pretty largely quantitative things: facts in social studies, natural sciences, grammar, and so on; skills in the arts, handwriting, physical education, homemaking, industrial arts, to select only a few fields. To measure them, we have survey tests for appraising groups, and diagnostic tests for appraising individuals. We have tests that cover a single phase of a field, like addition of fractions; some that purport to cover an entire field; and

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batteries designed to cover the entire scope of several years of school—the so-called achievement batteries.

Any test contains but a sampling of the things it purports to measure. Other things being equal, the larger the sampling, the better the test; and, conversely, the smaller the sampling, the poorer the test. Because of this factor alone, the scantiness of many of our published tests gives them little value in measuring direct learnings. Test publishers are in business for profit, hence they tend to publish only tests with wide potential sale. It is quite obvious that a test in, say, American History that is to be sold in the forty-eight states must omit items on phases of history that are of special interest only in certain states or abhorrent in others. Hence the more that schools adapt their curricula to their own regional, state, district, and community needs, the less useful will published standardized tests become in measuring those local items.

To offset the decreasing value of published tests, however, many schools are relying more and more on locally-made tests geared to local curricula. Classroom teachers are learning to build their own tests of direct learnings, using statistical techniques to eliminate the invalid and unreliable aspects of the classroom tests of yesterday. While there is much room for improvement, our schools are at least on the way toward doing a reasonably good job in evaluating direct learnings. And if all the test building and test-use information available were employed by all our teachers, this job of appraising direct learnings would be done very well indeed.

Evaluation of connected learnings. On no school or college level are we doing even a halfway job in evaluating connected learnings. The college English professor, who interrupts his lecture on Milton to give a brilliant discussion of English politics in Milton's day, never dreams of including a covering item in his test. In the high school, which, like the college, is departmentalized, the connected learnings are seldom, if ever, appraised.

One would expect the elementary school, with its one teacher for all subject fields, to be very effective in appraising these connected learnings. Certainly the elementary

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teacher has the opportunity. If she has an integrated program, her opportunity is excellent, but, very unfortunately, in most schools with an integrated program, the evaluation process is limited to measurement by subject tests.

It must be admitted that elementary teachers have made little conscious attempt to measure connected learnings. Practically all that now goes on is: (1) the meager evaluation done by the achievement test battery, and (2) the incidental measurement that goes on because the same teacher who talks about the Arabs' contribution to mathematics in the arithmetic period, later includes this in her test on world history. Unmeasured and unevaluated in any way is that wealth of connected learnings, highly valuable to learners but not within the realm of the regular "subjects," such things as how to tie a square knot, why Spanish and Italian are more alike than Spanish and German, why war-time gasoline makes the family car so hard to start, how to play chess, and so on and on through the literally countless things that pupils will learn from an alert, alive, many-sided teacher, and, as well, the things pupils continuously learn from each other.

These connected learnings are an important part of the individual's learning on any level, from the nursery school through the graduate school. No program of teacher evaluation of learning can be complete if they are ignored. In the college and the high school, departmentalization is the rack upon which students are doomed to suffer for years to come, and departmentalization virtually prohibits evaluation of connected learnings. In the elementary school, however, much can be done, as will be indicated in the last part of this chapter.

Evaluation of attendant learnings. If, as the writer holds, the attendant learnings are as important, or more important, than the direct and connected learnings, our programs of evaluation are deplorably inadequate. The great bulk of our schools have never made so much as an attempt to appraise them, and even our best schools have yet to make a respectable record. There are many reasons for this neglect, the most important of which are: (1) the lack of adequate evaluation devices; (2) the great difficulty

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of making such devices, due to the highly subjective and intangible nature of attendant learnings; (3) the departmental organization of all schools above the elementary level, which makes both teachers and administrators subject-centered; (4) the lack of adequate guidance programs, which, if they existed, would demand means of evaluating these attendant learnings; (5) the reluctance of psychologists to lead more vigorously in this field, in which their precious statistical procedure will not provide all the answers; (6) the lack of training of teachers and school administrators; (7) the present country-wide reaction against stress on anything except the three R's.

Because of their very nature, these intangible learnings cannot be measured by the usual "test" techniques. To say that anything that exists, exists in quantity, and that anything that exists in quantity can ultimately be measured³ is merely to support a statement of empty logic. One can measure his material wealth in terms of units we call dollars, but what units can be used to measure one's wealth of family love? And what unit of measurement can we use for a child's growth in intellectual curiosity, his tolerance of other races, his appreciation of Wagner, his liking for scientific experimentation, his respect for the rights of others?

The tester of the extreme quantitative school quickly points out that we must use the scale idea. Just as we measure handwriting with a scale, so we can measure intellectual curiosity, tolerance, and the like. But handwriting, when measured, is a static collection of marks on a piece of paper without life or movement. Tolerance, on the other hand, is a way of feeling and acting with relation to others. But, say the testers, we can use the rating system. We think of the most tolerant person we know, the least tolerant, and the average. With these three persons as fixed points, we rate our subject, 1, 2, or 3, or some decimal between, according to how his tolerance corresponds. The rating scale is a very useful device, but to say that it measures in the quantitative sense of the word is ridiculous.

One can have a learner respond to a printed *inventory*, showing what he thinks about such matters as letting

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Negroes vote, letting them live in white neighborhoods, playing on teams with them, sharing lunches with them, and the like, but this is far from measurement in the quantitative sense. One can observe the learner's everyday behavior with regard to Negroes, make a written record of that behavior, then consider it, but this is evaluation, not quantitative measurement.

These scales, ratings, inventories, observational records, behavior descriptions, and other similar devices are all very valuable in the process of evaluation of the attendant learnings, but let us admit without quibble that they are neither quantitative nor measurement. Let us accept them for what they are, qualitative evaluations, yet crude and highly subjective, and dependent for their worth upon the wisdom of the persons who devise them, administer them, and interpret them.

In summary, then, the present limitations of *total* evaluation of *all* the outcomes of learning are so great that the best job that the best-trained staff can do is still but a crude approximation of the real outcomes. And that the job now being done by the average teacher is pitifully inadequate. This should not be taken to mean that we ought, therefore, to abandon evaluation in despair. Rather, we should be eager to meet the challenge implied. For evaluation and teaching are *both* absolutely necessary in the learning process. To teach without evaluating is to teach blindly and, save for chance, but poorly. A marksman never hits his mark by closing his eyes and blazing away at space. He shoots, checks upon his accuracy, aims higher and slightly to the left, then shoots again. The good teacher guides the learning process, evaluates, changes procedure, teaches, evaluates, changes procedure, over and over again, knowing that the need for constant evaluation will cease only when he ceases to teach. The fact that his evaluation procedures are poor ones should only stimulate him to better them.

Techniques of Evaluating Direct Learnings

If the writer's definition of direct learnings is accepted,

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it is clear that their evaluation is largely a process of measurement. Facts, principles, processes, skills and the like are relatively tangible things. They lend themselves to quantitative measurement; only in some of the processes and skills must we use scales of performance, and in most of these scales the subjective and qualitative aspects have been so refined as to make them rather highly reliable, or consistent.⁴

Characteristics of good measurement. Practically every textbook on testing devotes at least one chapter to the characteristics of good measurement: validity, reliability, effectiveness of administration and scoring, existence of equivalent forms, norms, etc. In this brief statement, space can be given only to one of these, that of validity. Validity is a relative, not an absolute term; thus, instead of saying that a measure is valid or invalid, we say it has a degree of validity, high, low, none. A mathematics test with high validity is one that measures very accurately that which it claims to measure—the ability, say, of third grade pupils in the four fundamental operations.

There is but one sound method of arriving at the actual validity of a test, the method of correlation against what test statisticians call a “true measure.” Suppose one gives a half-hour arithmetic test to third grade pupils, then uses the test scores to rank them from best to poorest. Suppose one then gives a second form of the test to the same pupils and discovers that the ranking is exactly the same; that is, the pupil who scored highest on the first test also scored highest in the second, and so on, down. This proves nothing about the test’s validity; it proves only that the test is highly reliable, highly consistent. It is deplorably true that hundreds of our published tests are sold to, and used by, statistics-ignorant teachers because the publishers either carelessly, or with intent, publish claims of .89 reliability in such a way as to persuade that the tests are highly valid. It is true that tests with low reliability cannot have high validity, but a test with high reliability may be highly valid or may be totally worthless.⁵

Suppose, however, that one gives his half-hour arithmetic test, then gives the same pupils a very long, very

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complete, and very objective test that covers the entire scope of arithmetic any pupil in that grade may know. Suppose the correlation is very high, almost perfect; that is, suppose the top pupil on the half-hour test is also top on the long test, the second on one is second on the other, and so on. Then we can say, beyond all reasonable doubt, that our test is truly a highly valid one.

Every time a teacher considers giving a published test and using its norms, he should check carefully on its validity. How high is the validity? To how many students was the test given when its validity was established, a few hundred, or minimum of thousands of unselected pupils? And against what "true measure" was it checked? It is probably conservative to say that for three-fourths of our published standardized tests, neither the publishers nor the authors have anything more than a wild guess as to the actual validity.

How valid is the teacher-made test? When Professor Green grades his blue books in Philosophy 10B, and hands in his grades to the college registrar, how does he know that the student with an "A" got more direct learnings than the one with a "B"? Some of the few books devoted entirely to teacher-made tests⁶ give considerable space to what steps to take to secure high validity as the test is being made. Few teachers can take the time and afford the expense of establishing validity by the experimental procedure of correlation against a true measure, but all can follow these simple steps:

1. Make the test sample *all* the subject matter that it purports to measure.

2. Conversely, include in the test no item not a part of the subject that is being measured.

3. Never add to, or subtract from, a score on, say, a history test for such extraneous things as handwriting, neatness, the social status of a pupil's family, his "effort" to learn, ability at composition, etc.

4. Sample evenly; do not have many items on one aspect and few on another unless the aspects are unequal to the extent of the items on each.

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5. Phrase test items so that every learner understands what is asked.

6. Score the tests as objectively as possible.

Value of standardized survey tests. A survey test is relatively short; its sampling is very limited. At best, its chief evaluating use is limited to appraising the direct learnings of a class or group of learners. As a measure of an individual, it is practically worthless. The average survey test is a quite satisfactory way to determine the average ability of any group. But no arithmetic test of an hour's duration can accurately appraise the general arithmetic ability of a given child in the sixth grade. Nor can it have much value in diagnosing that child's strength and weakness. Nor can it have much value in diagnosing the strengths and weaknesses of a class of pupils.

Most of our published tests are of the survey type, including many that are labeled "diagnostic." At least 95 per cent of all the survey tests given this year will be used for ends that they are simply inadequate to serve. The best survey tests, used legitimately, still have the shortcomings pointed out earlier in this chapter; being general in nature and limited to the essentials, they cannot measure the learnings that are peculiar to the particular region, state, county, community.

Value of the standardized diagnostic test. He who is a bit cloudy on the difference between survey and diagnostic tests should compare any survey test in arithmetic with the Compass Diagnostic Tests in Arithmetic.⁷ Composed of twenty different tests, some of which have a taking time as long as an entire survey test, this test really diagnoses. Unfortunately, diagnostic tests are very costly to make, to publish, and to buy. As a result, we have only a few good ones each in such fields as arithmetic, reading, and language usage, and practically none outside of those fields. If, by some magic, we could trade every fifty published survey tests for one good diagnostic test, the cause of evaluation would receive a priceless boon.

The diagnostic test is, of course, long. It samples exhaustively. It tells specifically just what things the learner knows and what things he does not know. Most diagnostic

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tests have norms, but these are relatively unimportant. Some day, perhaps, we shall have enough sense to eliminate the norms, thereby reducing the cost of the tests and increasing their number and use. A diagnostic test can be used to diagnose both a group and an individual. As an evaluating instrument it is, therefore, highly worth while. One of the most hopeful movements under way before Pearl Harbor, was the move, in some school systems and even colleges, in getting the local teachers to cooperate in building diagnostic tests geared directly to the local curricula.

Value of standardized survey battery. The survey, or achievement battery, is a collection of survey tests that together purport to cover the entire scope of a given educational level; such as the primary grades, the middle and upper elementary grades, the high school, or the college. The elementary school batteries are made up of survey tests in arithmetic, social studies, reading, language usage, spelling, literature, and sometimes elementary science. Omitted are handwriting, art, music, the practical arts, and other less "solid" fields. On the secondary level, achievement batteries are limited largely to English, mathematics, social studies, and science. The achievement battery on the college level is really not a battery with usable blanket norms, but, rather, a collection of survey tests covering largely the arts and science courses.

Of what use are these batteries in an evaluation program? First, it should be remembered that the individual tests that make up the batteries are survey tests. In fact, many are printed separately as such. Every limitation of the survey test applies to any given test in an achievement battery. To give an elementary school pupil a grade in arithmetic, on the basis of his performance on the arithmetic section of an elementary achievement test, is indefensible. Equally bad is the current practice of grading a high school student in mathematics on the basis of his performance on the mathematics test of a high school achievement battery.

It is defensible to use an achievement battery to get an all-around measure of an elementary pupil's direct learn-

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ings in the "academic" curriculum. Thus, if the principal is uncertain as to whether a new pupil should be placed in the fifth or the sixth grade, an achievement battery score will yield a fairly satisfactory answer. In any case where only a general measure of a given pupil or group of pupils is needed, the achievement battery is valuable. On the secondary level, the value of the achievement battery is more limited because it omits the foreign languages, art, music, industrial arts, home economics, commercial training, etc. Many colleges give high school achievement batteries to college freshmen. Used as admission measuring sticks, they are dangerous, but used for guidance they have considerable value. On the college level, achievement batteries are yet in the experimental stage.

Value of the teacher-made test. For nearly two decades, most of the colleges that train elementary and secondary school teachers have required a college course in testing. Practically every such course has paralleled the typical college textbook in testing, devoting at least 90 per cent of the time and effort to teaching the students how to give and use standardized tests, and 10 per cent or less to teaching them how to make and use their own tests. Worse yet, many of these courses are little more than courses in elementary statistics, which, because of their lack of significance, are hated and feared by teacher-trainees.

There can be but scant progress in the evaluation of direct learnings until teachers learn how to make, to give, and to interpret highly valid tests of their own. No standardized test built for nation-wide sale can possibly cover the community, district, state, and regional modifications so necessary in the curricula of vital, living school and college programs. Our first reform should start with our teacher training institutions. The required course should be one in *evaluation*, not testing. Nine-tenths of the course time should be devoted to training prospective teachers to make their own tests and other evaluating tools, with perhaps one-tenth to a study of standardized tests. Statistics should be postponed to advanced courses. In their evaluation course, teachers-to-be should learn when to give tests and when to use scales. They should have training and

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sound experience in making, in giving, and in interpreting tests. As will be pointed out later, they should be stimulated to explore the field of inventories, rating charts, and other means of probing into the intangible attendant learnings.

Summer session courses should be provided for teachers who have not had this training. There should be advanced work, specialized courses in evaluation of social studies, evaluation of science, and the like. If evaluation of learning is regarded as a tremendously important aspect of teaching, we should at long last begin to give adequate time to training teachers to evaluate.

Technique of evaluating connected learnings. There is no easy way to evaluate connected learnings. Certainly standardized tests can do nothing here, for no test-maker could possibly foresee a tenth of one percent of the highly valuable connected learnings that the third grade pupils of the nation get in a single day. A survey battery will measure a few connected historical learnings that pupils get in their literature hour, but what about the connected learnings that go on when a Jewish refugee girl in the high school history class tells her story of oppression in Munich; when the fifth grade teacher interrupts her nature study discussion to describe Indian farming as she saw it on her trip to Peru; when the plumber, called in to fix a leaking schoolroom radiator, is prevailed upon to show the pupils how the steam heating plant works?

The only way to evaluate connected learnings is by means of teacher-devised procedures. Pupil records, by individuals and groups, of all the "extra" things they learned will make a start. Tests drawn from these records. Anecdotal records by the teacher. Information check lists. The field is very new, but the challenge is very great, and if the teachers accept the challenge, the means will be discovered.

Technique of evaluating attendant learnings. The educators who believe most in the importance of attendant learnings are the educational philosophers. Unfortunately, however, educational philosophers seem assiduously to avoid the kind of drudgery necessary to develop either

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qualitative or quantitative measures. Conversely, most of our producers of measuring devices are those so-called hard-headed people who direct a fishy eye toward attendant learnings because they do not exist as quantitative entities, and stubbornly resist statistical manipulation into norms, reliability coefficients, and the like.

Among our less mechanistic psychologists are a few brave souls who have developed scales of introversion-extraversion, temperament, honesty and other personality traits. Most of these scale-makers saw the futility of establishing validity coefficients without years of time and tremendous cost, so they salved their statistical consciences by working out beautiful reliabilities, which mean, simply, that their tests are consistently something or other. There are hundreds of personality, interest, appreciation, vocational, and similar tests with norms or indices that purport to measure and even to predict, but there exists not a single one that has a reasonably high and legitimately established validity. The reason is simple. One makes a test of, say, honesty, and then gives it to 100 people. The scores run from high to low. But the only way one can determine what a score actually indicates, is to make an exhaustive investigation into the everyday honesty of every one of the experimental thousand. The poor vocational aptitude test author is worse off; if he wants to prove that his test amounts to a tinker's damn, he must wait for years to see if the boy who followed the test's advice, and went to law school, actually makes a good lawyer.

Lately there has been an encouraging tendency to overthrow the tyranny of statistics, and to build evaluating devices like inventories, information blanks, rating sheets, time samples, etc. that are unencumbered with probable errors, reliabilities, or even norms. These simple evaluating instruments, yet pitifully few in number, offer the brightest hope that some day we may be able to do a real job in appraising attendant learnings.

Suppose a prime objective for the school English teacher is that attendant learning, a liking for good literature. At the year's start, he gives an inventory test that shows how well each student now likes good literature. At the half

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year and the end of the year he repeats the inventory or gives a duplicate form of it. From these inventories he can tell very much about his success in getting the class and each student to like good literature. True he will have no norms to play with, but norms are not necessary. True, his findings will scarcely be quantitative, but they will be tremendously valuable none the less.

This treatment is too short to deal with techniques of making such inventories, but a few words of caution might not be amiss. Our early inventory makers made the mistake of devising questionnaires that asked the student if he liked to read *As You Like It* very much so-so, or very little. Or the mistake of asking him which he preferred, *Treasure Island* or *Boy Raiders Over the Congo*. Such techniques have little value, for the average student usually checks the answer *he thinks he should check*, the one the teacher will approve, not the one that indicates the truth. Most of our interest inventories now available have this or similar flaws, hence have little value. The best way to determine whether a student has learned to like good literature over a given period is to find out just how his reading has changed during that time. Hence, our inventory should be devised to find out just what books, stories, etc., each student has actually read on his own initiative, during each period inventoried. To prevent falsification, the student should be asked to respond with certain plot data that will verify his statements.

In other interest fields, our inventories will ask: not how you like baseball, but how often you have played it the past month; not do you like chemistry very much or very little, but what articles on chemistry you have read recently, what home experiments you have made. etc. Good techniques of probing interests are yet few and narrowly limited, but the chief reason is neglect, not any great essential difficulty in devising them.

The same, or similar, approaches must be made to evaluating virtually all the other attendant learnings. To ask learners to give their opinions as to race tolerance is a procedure of doubtful value. Some will be honest, some will think they are honest but respond incorrectly, some

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will just fib. Our questionnaire should ask, specifically, what actual manifestation of tolerance, what act, has been performed lately. Initiative can be truly evaluated only in terms of things started. Resourcefulness is shown only in problems met. Honesty in money matters consists of actual rejection of opportunity to steal. Truthfulness consists of resisting temptations to lie. Trustworthiness consists in meeting a trust. Some of our classical investigations have proven these facts.⁸

That a student says he thinks classical music is more beautiful than the current radio favorites means little; his appreciation is actually evaluated only when we know what radio programs he listens to most, when we know what records he plays on the school phonograph when he thinks no one else is concerned. Often, therefore, the inventory, questionnaire, and other pencil and paper means of gathering information must be supplemented, or even supplanted, by actual investigations by the teacher. The bibliography at the end of this chapter gives a few of the many good treatments of these other techniques; rating scales, on which the teacher checks habits, personality aspects, and the like on the basis of observation of the learner at work; time samples, which are actual records of all that a learner had done in a given period of time; interview records. For the teacher who can ignore their norms and simply use them as evidence, many of the personality tests are useful. An occasional teacher might even experiment with an association test, when one of the difficult "cases" seems to resist every other effort at solution.

The fact that our evaluating techniques for attendant learnings are yet few and unreliable is not of major concern. This can be remedied. Of tremendous major concern is the condition that lies behind our few and poor techniques, the widespread indifference to the need for evaluating these attendant learnings. Only theoretically could one move the earth if he had a fixed fulcrum and the proper lever, but actually, and in a surprisingly short time, we could develop many effective ways of evaluating the attendant learnings in all age levels, if we were only firmly convinced that these attendant learnings are second to no

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other learnings, and that we can teach them better only as we evaluate them better.

NOTES ON THE CHAPTER

1. This chapter should be studied in connection with the following chapter on "The Guidance Program" by Norman Fenton. Guidance involves the use of tests and other devices of measurement and appraisal. The reader should observe the contrasts between the writers of the two chapters as to their estimate of certain types of evaluation techniques. The difference in point of view is typical in educational theory and practice.—Editor.

2. William A. McCall, *Measurement* (New York: The Macmillan Company, 1939), chap. VII, pp. 91-133.

3. For an extreme statement of this dogma, see William A. McCall, *ibid.*, chap. I.

4. As in, say, handwriting, composition, etc.

5. Space does not permit an adequate explanation of the inter-relations of validity and reliability. The reader who is confused on this matter should read G. M. Ruch, *The Objective or New Type Test* (New York: Scott, Foresman, and Company, 1929), pp. 26-63, in which there is one of the best explanations in print.

6. See: Giles M. Ruch, *The Objective or New Type Examination* (Chicago: Scott, Foresman and Company, 1929); Henry D. Rinsland, *Constructing Tests and Grading in Elementary and High School Subjects* (New York: Prentice Hall, Inc., 1938).

7. G. M. Ruch, F. G. Knight, H. A. Greene, and J. W. Studebaker, *Compass Diagnostic Tests in Arithmetic* (Chicago: Scott Foresman and Company, 1927).

8. See, for example, the techniques described in Hugh Hartshorne, Mark A. May and others, *Studies in Deceit* (New York, The Macmillan Company, 1928).

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CHAPTER XV

THE GUIDANCE PROGRAM

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The principal objective of guidance is to help to bring about in the lives of those dealt with conditions which may be the bases of happy and effective living. Assistance to the individual in his adjustment to outward circumstances is, to be sure, a necessary feature of the program. The test of guidance is, however, whether it can affect the inner life of a person, his feelings and attitudes, so as to lead to sustained personal enjoyment and accomplishment. The late William Burnham² summarized three essentials of purposive striving which make for wholesome living. These may serve as a good basis for indicating briefly the direction toward which the guidance program should point. The first he describes as the selection and definition of a task which commands respect. Presumably this could mean not only immediate ends but also for the long pull, a life plan of sufficient interest and dignity to stir hopes, ambitions, and energies. Second, Burnham mentions the importance for the individual of a plan to attack and resolve the problems before him. This brings to earth the ideal purpose. The individual is guided toward the selection of means whereby to deal effectively with reality. The third condition is freedom in carrying forward the immediate task or the life-plan. This may imply presum-

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ably reasonably adequate satisfaction of needs in the personal life of the individual.

The fundamental objectives of guidance in regard to personality development should be emphasized. The specific methods of dealing with the individual are then more readily understood and applied. Unless the underlying purposive forces of human personality are guided toward self-direction, the individual may be seriously handicapped. Although no one as yet has defined or measured the minimal degree of sustained purpose which makes possible success in living, comparisons of men and women of outstanding achievement with those who are notable failures indicates clearly that persistent purposive striving is an important differential between these two extremes. The guidance program must be so fashioned as to enable the individual treated not only to deal with immediate problems in his life but more essentially to help him toward the selection of adequate plans and hopes for the long years ahead.

From the practical standpoint, the term guidance contains an implication usually of two stages in the study and treatment of the personality of an individual, whether he be a pupil in the elementary school, an aspirant for a cadetship at West Point, a student in the university, an applicant for a technical job in a factory, or the soldier at the separation center. The first is the diagnostic study; the attempt to describe the person's abilities, attitudes, and interests. Thereafter, as the subsequent phase, comes the utilization of these findings by the individual himself and by others on his behalf to direct his future course of action. In any effective guidance work, the consideration and treatment of the individual's feelings about himself and his relationships to others are at least as important as the direction of his vocational, educational, or other practical activities. In the completion of these two major objectives a variety of persons may be involved—teachers, or other members of educational or social agencies, and perhaps guidance specialists who may assist or counsel those responsible for the routine activities of the agency. Included in their number might be the dean or school counselor, the

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clinical psychologist, the psychiatrist, the vocational counselor, and many others. In their work, these persons employ technical methods in accordance with the particular approaches of their professions.

The novelty of the present account comes from the situation in which the author finds himself, namely a guidance center through which men newly admitted to a state prison system are routed for diagnostic study leading toward the working out with them of plans for their life in prison and later on parole. The description of this program, and the use of an illustrative case history, offers, moreover, an opportunity to explain more vividly the nature of guidance than would an abstract discussion. The program of individual study of the Guidance Center of the California Prison System is, furthermore, more thorough than that ordinarily found in schools and colleges and includes most of the practical diagnostic techniques likely to be employed in educational institutions. The range of recommendations for the treatment of the men, likewise very extensive, covers a broad selection of procedures many of them applicable not only in the university but also in the elementary and secondary schools. This particular approach to the exposition of the guidance program is, moreover, both practical and timely, since the methods employed may not only be adjusted to use in school and college but may also be helpful in adult education—a field destined for prominence in democratic society in the post-war years.

Description of the Guidance Center

Located within the walls of San Quentin Prison is a department or institution called the Guidance Center. The purpose of the Adult Authority of the Department of Corrections is to have this agency separated as far as possible from the administration of the larger prison unit, San Quentin, in which the Guidance Center is housed. First offenders in California are segregated for their initial seven or eight weeks in prison and thereafter recommended for transfer from the Guidance Center to the rolls of one of the three prisons, located at San Quentin, Chino,

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and Folsom. Some of the men sent to the Guidance Center may have been in prison before in other states. Those who have violated the rules governing parole are examined at present upon their return to prison under other auspices; this is true also of men sent to the "condemned row."

The challenge before the staff may be recognized by a brief account of those who are received. During a period of four months, over 500 men were received whose ages were between 17 and 76. Two-thirds of the men were first offenders who had never been in prison before; some had never been arrested until the commission of the present crime. Most of the men with a first penitentiary sentence had, however, served earlier city or county jail terms. The range of previous education was from illiteracy to completion of the university program in medicine. The vocational backgrounds were equally varied, as were the health and physical status of the men. Represented among them were all kinds of racial and religious backgrounds and cultural and economic levels.

Many problems beset the inauguration, during the autumn months, of the program of guidance in the Center. The staff to be selected were practically co-extensive with the field of guidance; the techniques to be chosen so comprehensive as to include all the diversified guidance services for men in various educational, trade, and industrial situations. The pages which follow go into some detail in regard to the evolving purposes and methods of the Guidance Center. A case history is presented in order to illustrate how the various approaches in the study of the individual are integrated in the final summary of his case.

The Conservation or Rehabilitation of the Learning Process

A major purpose of guidance in the educational institution should be the conservation of the learning process in students. In the wholesome pre-school child, learning is a happy experience. In high school and college, the ordinary student has lost some of this original enjoyment of

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learning, because what goes on in school does not conform with adolescent interests and purposes. To meet this trend away from spontaneity in learning, various types of negative incentives are used to prod the otherwise resistive student to continue at work. Thus examinations which should be a valued tool by which the student may measure his progress are instead commonly utilized as a threat to keep him unwillingly at work. There is no doubt that many pupils in the upper years of school are bored and indifferent to what is offered or required in the curriculum. Because of the limited time afforded to the guidance specialist for diagnosis and treatment, the maladjusted student in high school may not be greatly helped ordinarily by any efforts his counselor may be able to make to restore that interest in his work and joy in learning which is the optimal condition for educational achievement and useful living.

On the adult level in prison, the problem before the guidance specialist may be regarded in part as the reconstruction or rehabilitation of the learning process in the individual prisoner. Had joy in learning what is socially valuable been a true characteristic of these men, many might never have arrived within the prison walls. In the Guidance Center the men dealt with are newly admitted to prison. Nearly all are genuinely concerned about their immediate future. Orientation to prison and parole is a necessary feature of any guidance program. A practical program of group and individual guidance has been developed. The most significant phase of treatment in prison is the restoration of the man's faith in himself and the development in him of willingness to advance educationally and vocationally and to find pleasure and satisfaction in this learning experience. The degree of conscientiousness of the man's attitude toward plans for self-improvement is, ordinarily, a factor in the length of time he must remain in prison. Every effort of the staff of the Guidance Center is directed toward bringing about in the men an acceptance of the prison as a treatment rather than a merely custodial agency.

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Guidance and Education

Guidance is considered by most authorities to be a special service of education—an adjunct to the customary activities comprising the curriculum. The school has nowhere approached a program in which all available resources—medical, psychological, vocational, educational, recreational, religious—have been applied in the educational system for the study of the personality and the development of all pupils as individuals. If this were done, then the program of the individual pupil would be so carefully and thoroughly directed toward his personality development that everything known to guidance specialists and educators would be introduced into the program for the individual. The amalgamation of education and guidance would approach completeness. Even the most advanced educational institutions have nowhere realized this ideal.

The program of the Guidance Center of the California Prison System is of interest in connection with the relationship of education and guidance because in one aspect of the program there is an interesting integration of customary diagnostic procedures with educational methods. In a classroom situation in which the men are segregated on the basis of educational status, they are observed individually for about fifty hours. Educational treatment is introduced simultaneously. Work in the fundamentals on an elementary level, or special individual instruction in secondary school subjects such as mathematics or literature, in which the man is interested, are included in this phase of treatment. The teachers prepare a report summarizing their impressions of each man—his attitudes toward learning, his social behavior in the classroom, his general cultural background, and other matters. The observations of the teachers, better called, perhaps, educational clinicians or therapists, have proved to be very helpful in understanding the individual and judging the status of his willingness and ability to learn. This type of study is very meaningful from the standpoint of personality analysis when correlated with

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test results. In this classroom situation, education and guidance draw closer together.

Two work projects—the renovation of mess hall tables and the demolition of an old cell block—have provided, also, good situations in which guidance and practical activities become closely associated. The attitudes and work habits of the inmates have been observed for a period of fifty hours while they have been engaged in doing rather unpleasant, manual labor or simple semi-skilled work. These findings are useful when correlated with the results of vocational tests and interviews. The somewhat artificial procedures of the clinical laboratory are supplemented by observations of the individual in a more natural or lifelike situation. This phase of vocational guidance is carried out exceedingly well in some schools in the general shop, a valuable adjunct to the guidance laboratory to be added later on to the facilities of the Guidance Center.

In addition to these two situations, the men have also been observed during the long, daily period of confinement in their cells, on the way to and from meals and while eating, and under various other circumstances. As the observers in the work and living situations have all had years of successful experience in dealing with prison inmates, their reports have, likewise, proved to be very useful in the diagnosis of personality. These data, more naturalistic than test responses or reactions in interviews, or even behavior in the classroom, reveal significant insights into important facets of personality. Later all the various findings about each man are thoughtfully considered in the guidance conference by the entire staff.

Obviously, schools or colleges may not need to resort to such thorough study of new students. The responsibilities of a guidance center in a prison are such that the highest degree of technical skill and understanding should be employed by the staff in the diagnostic study of each man and in the later planning for his program not only during his stay in the institution but also in the more crucial situation thereafter when the man is released on parole. Accordingly a scrutiny of such a guidance center should offer a means of describing the field of guidance and its

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relations to education more exhaustively than would the exposition of the ordinary rather superficial procedures of schools and colleges.

Major Areas of Inquiry

Under the general heading of guidance, there are almost as many different systems of nomenclature for sub-divisions of the field as there are books on the subject. The headings which we have used are listed below and will be defined later. Each indicates an area studied by one or more members of the staff of the Guidance Center. Each guidance specialist prepares a summary of his findings and recommendations which are presented at the case conference.

1. The social background
2. The criminal history
3. Medical examination
4. Vocational study
5. Educational history and analysis
6. Religious history and attitudes
7. Initial adjustment to prison
8. Personality summary (psychological and psychiatric study)

The social background. The social history of the individual man is obtained from a number of sources and brought together by the sociologists on the staff. The man's early life, his military, school, and work history, his family background and marital adjustment, are among the major phases of the case studies. The initial sources for the detailed study are obtained from the man himself or from documents received from the county officials. The family of the man is reached through questionnaires sent by correspondence, or, in a few cases, through individual conferences as in the taking of the ordinary social history. In addition to the study of the family background, the following other sources are reached: employers, friends, social service exchanges, previous institutions and hospitals in

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which the individual may have been confined. The recreational interests and experiences are also recorded here. The information secured from these various sources is brought together in several single-spaced, type-written pages.

The criminal history. Because of the particular type of individual studied, many sources are utilized; for example, the report of the Federal Bureau of Investigation, in regard to his criminal history, or the county authorities responsible for his commitment to prison. The man's own story of his crime is given serious consideration in its interpretation.

Medical examination. A complete physical examination is given by the physician. It includes tests for venereal disease as a routine and other special examinations as indicated.

Vocational study. Vocational study is carried out by the vocational counselor and includes an interest test and various achievement and performance measures. The tests used routinely are the *Kuder Performance Record*, the *Revised Minnesota Paper Form Board Test for Mechanical Aptitude*, the *Minnesota Vocational Test for Clerical Workers*, the *Purdue Pegboard* and the *Finger Dexterity Apparatus*. A variety of tests are used to supplement these in accordance with individual need; these include the *Purdue Industrial Training Classification Test*, the *Purdue Test for Machinists and Machine Operators*, the *Purdue Test for Electricians*, the *Kimberly-Clark Typing Ability Analysis*, the *National Clerical Ability Test*, the *Mechanical Comprehension Test*, the *Minnesota Mechanical Assembly Test*, the *Strong Interest Test*. An interview includes the use of oral trade questions and other means for estimating the man's vocational competence as well as his occupational interests, and is utilized to integrate the data from the tests and other sources. A good measure of his actual competence and willingness as a worker is obtained from the observations of the man on the work projects. The definition of tentative vocational plans within the man's capacity are arrived at with his cooperation.

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Educational history and analysis. The educational status of the man is determined by the Stanford Achievement Test and other measures of scholastic background. Usually this information is supplemented by communications from educational authorities or relatives. Observation of the learning process of the man as shown in an actual school situation is afforded by the educational situation referred to earlier. Records are also kept of the man's willingness to study voluntarily in his cell at night. Plans for educational work during his stay in prison are defined specifically in terms of the man's interests and ambitions and the offerings of the institutions.

Religious history and attitudes. The chaplains interview the men of their particular denominations. The purpose of this study is to ascertain the previous religious interests of the man and his present attitude toward religion. Recommendations are evolved as to what should be arranged for the man during his stay in prison by way of religious experience.

Adjustment to prison. The reactions of the men to the institution during their first month in prison are quite significant. All members of the staff contribute observations in this connection. Three sources have been especially fruitful. The observations of the teachers in the classroom, and of the supervisors on the work projects described above are especially helpful in evaluating the natural behavior of the man. The third source consists of the observations of supervisors at various times during the day and night, including the period in the cell block, in the mess hall, and on the play field. These men record the attitude of the inmate toward the staff, his general attitude toward study and work, and his behavior toward others in the group. Anecdotal records and graphic rating-scales are filled out by the staff. These data may offer significant insight in regard to the man's attitude toward learning and his desire for personal advancement. Interviews with psychiatrists, psychologists, sociologists, vocational counselors, and others afford a significant and complementary means for determining initial adjustment to prison.

Personality summary (findings of the psychological

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and psychiatric study). A major concern in the customary diagnostic study of men in prison is the psychological analysis of the man's personality. In the Guidance Center the staff psychiatrists and clinical psychologists collaborate in the preparation of this summary. In some cases, the clinical psychologist has a major role, for example, in the diagnosis of mental deficiency without psychosis, and in others, such as marked sexual or other aberration, the psychiatrist prepares the final summary. All cases are observed and examined and discussed in consultation by both specialists.

The clinical psychologist carries on his study of the men by means of group and individual mental tests and so-called measures of personality. Group tests of mental ability used routinely are: *Revised Beta Examination*, *Scoville Classification Test*, *Otis Intermediate and Higher Examinations*, *Cornell Selectee Index* and the *Kent Emergency Test*. The individual tests employed are the *Stanford Revision of the Benet-Simon test* and the *Bellevue-Wechsler*. Among the personality tests utilized are the *Shipley-Hartford Retreat Scale*, the *Minnesota Multiphasic Personality Inventory* and the *Stanford Attitudes-Interest Analysis Test*. Projective methods for the study of personality include the *Rorschach Method of Personality Diagnosis*, the *Harower-Erickson Group Rorschach Technique* and the *Murray Test of Thematic Apperception*.

When the clinical psychologist has completed his own analysis of the man, he is expected to integrate his data with the findings of the sociologist, vocational counselor, teachers, chaplains, and supervisors. Thereafter the psychologist confers with the psychiatrist in regard to the case. The psychiatrist decides how intensively he will need to study the man. Still longer psychiatric observation is made for certain cases in which the men are hospitalized for the necessary period of time in the psychiatric ward of the San Quentin hospital.

The work of the psychiatrists and psychologists also includes some efforts in group therapy. Space permits only a brief statement of this work which is still in the process of development. The major objective of group guidance

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is to help the men to gain some insight into their problems and to aid those willing to cooperate in treatment toward understanding and acceptance of themselves and the development of constructive interests and life plans.

Group Guidance

A number of authentic and very useful textbooks have dealt at length with group guidance. These volumes describe the programs of orientation in different schools and colleges and such special courses as occupations or family relations. Administrative devices to this end, for example the homeroom, are also reported in these volumes.

In the Guidance Center of the Adult Authority, the program of group work consists of two parts. The first is made up of the customary methods of orientation. Thus, the man newly committed to prison is reached initially in the county jail by a practical bulletin of information, concerned with such things as inmate mail, visits, clothing, etc. This is supplemented by a longer bulletin given to the man upon arrival in the Guidance Center. These two bulletins were prepared in collaboration with inmates on the basis of their own questions and problems. Other mimeographed material given to newcomers is concerned with features of prison routine or with training facilities; for example, the educational and vocational opportunities at the three prisons are summarized in one bulletin.

A series of lectures is given by members of the staff and by visiting lecturers to orient the men in regard to the program of the prisons and the conditions of parole. A period for questions follows each lecture. The Director of Corrections gives the men a general idea of the prison program. The heads of the three prisons are invited to address the men in regard to their specific institutional programs. The problems of the length of sentence are discussed by members of the Adult Authority. These men and the State Parole Officer also describe the conditions under which men are granted parole. Because the men who fail on parole and are encountered in the county jails

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or at San Quentin are likely to be very outspoken in their criticism of the parole system, arrangements have been made to bring successful parolees to San Quentin to discuss their experiences and treatment after leaving the institution. This is by way of antidote to the pessimistic accounts of those who have failed on parole.

The educational experiences of the men include studies of different occupations. These discussions are enriched by reading materials and by the use of visual aids such as sound motion pictures. The offerings of the various institutions are used as the basis for much of this study and discussion of occupations. The classrooms are also the setting for group discussions of social and economic problems, thereby permitting the release of hostilities toward many aspects of life in prison and society. The teachers have been successful in getting the men to express their feelings and so be relieved of some of the tensions and hatreds and misunderstandings which beset them.

Another important aid for inmate orientation and adjustment comes from the activities of the men's council. Each class in the educational department elects a representative. Meetings are held weekly at which the topics considered may issue from earlier discussions in each of the classrooms or from observations of the council members. The actual problems of the men are considered. Many helpful suggestions for the conduct of the Guidance Center have been obtained from this source.

The Guidance Conference

An important and exceedingly difficult feature is the staffing of a case, which is called the guidance conference. In the Guidance Center, this takes place toward the end of the man's stay. The staff meets in a friendly, democratic session at which all report their findings. Data from all eight areas of inquiry are reported in the order indicated. The staff try to evaluate these observations, and questions may be raised during the presentation. An attempt is made, thereafter, to interpret each history in terms of the relationship of causal factors of the problems pre-

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sented by the man, with a view to trying to understand what may be responsible for his antisocial behavior. An effort is made to ascertain the unmet needs in the life of the man during childhood or later which may have brought about conflict or frustration and prepared the soil in which the personality disturbance grew.

After the data of the case have been contributed by members of the staff, each from his own point of vantage, and the group as a whole has formulated some tentative explanation of causal factors, the conference turns to the important questions, first of determining the degree of treatability of the man and then of formulating recommendations for his treatment in prison. The willingness of the man to change is important in determining the type of institution to which he is to be sent; whether he is to go to a prison with very close custody and supervision or to one in which the restraint is minimal and the program has been designed for men capable of taking some responsibility themselves. The recommendations for specific treatment are determined by the man's attitude, and follow the order of the list of areas of inquiry presented above. As indicated in the case history below, an effort is made to formulate recommendations that are definite and practical.

Pressure of work may force the briefing of case conferences and the telescoping of the above procedure. Unfortunately, at this time only fifteen or twenty minutes are available on the average for discussion of a case. Members of the staff usually hold other informal conferences, especially in regard to cases which present interesting and difficult problems.

The guidance conference not only serves the purpose of integrating the data about each man and planning for his career in prison, but also is an excellent occasion for the study of the functions and procedures of the Guidance Center itself. As a medium for in-service training of prison personnel, it is very valuable; guards, trade supervisors, and administrative officials have been invited to attend. It is contemplated, also, that electrical transcriptions, or

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possibly sound motion pictures, be made of actual guidance conferences.

The Record System

The selection and institution of a system of records for the guidance program should be based primarily on their practical use. Traxler and others³ have contributed interesting studies of record systems. In the program at the Menlo School and Junior College,⁴ records were assembled in the guidance office so that members of the faculty could use them profitably and expeditiously. In the room set aside for records were convenient tables for the faculty to study the case histories, since it was not permitted to remove them from the guidance office. The folders for each student were organized on the basis of a system of tabs so that members of the faculty could obtain an account of any phase of the student's personality at once by turning to the proper section and without having to thumb through a loose set of papers, blanks, and reports. Within six months after the introduction of these records, observation showed that about half of the members of the Menlo faculty were using them voluntarily; a year later practically the entire faculty were consulting case records.

The records of the Guidance Center at San Quentin are compiled in a folder which is put together in convenient fashion for use of the staff. Because the men are in the Guidance Center only a short time, an effort is made to have the individual staff members place their information as soon as possible in the man's folder. These materials are filed loosely at first. After the man's case has been staffed most of the blanks and reports are forwarded to the institution to which he is sent. The remaining pages are stapled together for security, but there is no need to attempt an organization of them in the manner described above in the case of the Menlo School and Junior College. Subsequent data are only occasional reports of progress from the institutions to which the men are sent. If the Guidance Center were to continue the treatment of its cases for a

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long period of time instead of transferring the man at the end of a few weeks, then the form of the history would have to be more systematically organized. The present plan has proved to be adequate for the effective conduct of the Guidance Center.

The day should now be past when records are kept for their own sake with miser-like hoarding and unwillingness to allow others to share in their use. In agencies confronted by practical problems, records exist only for their usefulness to the persons studied. They should be organized primarily in terms of the convenience of the members of the staff who may use the data profitably in the treatment of patients, clients, or students as the case may be.

The Case Study

In the field of guidance, needless to say, there is considerable variation in thoroughness of case studies, from the very superficial work in many schools by part-time counselors to intensive studies such as are carried out in the better clinics, schools and colleges. There is a variation in the actual time given to individual cases by the staff; the range being from a few minutes per semester in the large high school or college with insufficient staff to over one hundred hours of observation and study in the course of a month in the well organized clinic or guidance center. One means of showing the level of guidance work is through the citation of an actual history of a case. The literature now contains many examples. For instance, the study and treatment of a problem child carried on for over a decade has been reported.⁵ Rogers⁶ has cited an interesting case of an adult given intensive treatment by interview. Sayles⁷ has contributed some lengthy examples of the work of the child guidance clinics of about a decade ago. Bloss⁸ has reported four excellent examples of case studies of adolescents.

Perhaps the most interesting possibilities of this case citation are the suggestions it may offer for adult education. It is not to be expected that facilities will be made available for similar complete studies of all persons who enter programs of adult education, but in certain cases

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such a study should be attempted. For instance, a comprehensive approach should be considered in planning for the educational program for veterans. The government is planning to spend billions of dollars to provide for post-war educational advancement of veterans. It is exceedingly important that a sufficient amount of money be made available in order that these prospective recipients of governmental bounty be directed toward lines of endeavor which will be most rewarding of their efforts.

The case of A. The following case from the files of the Guidance Center has been selected to illustrate the results of the intensive study of these men. The staff is aware of many obvious limitations in our work, for example, the lack of interviews in the compilation of the social history. The case of A. may be interesting, however, because of the implications it contains for other similar institutions, and even for schools and colleges. It is a sad commentary on our culture that for most of the men of the Guidance Center their first study by a staff of guidance specialists was carried out in prison.

Social History:⁹

A. was born March 5, 1922 at Pueblo, Colorado. The family moved to Iowa City, Iowa, when he was eight—at which time the parents were divorced. Mother remarried shortly thereafter and family accompanied mother and step-father to California. A. had two older brothers. After several moves in California, family settled in Los Angeles, where step-father conducted a small business. The older brothers left home shortly thereafter. The family has never received public assistance of any sort.

A. completed the 11th grade in Los Angeles in 1939. He enlisted in the Coast Guard in 1941. He was a seaman second class, and did well. In 1942, A. was dishonorably discharged for being AWOL. According to his story, he overstayed his leave while trying to assist his mother who was seriously ill and later died. His step-father had passed away a few months earlier. Verification from the Navy was not obtained. He secured employment later in the ship-yards where he was working at the time of his arrest.

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In 1941, A. married a 17 year old girl whom he had known only a few weeks. They lived in an apartment in Los Angeles and A. admitted that his wife was impractical and extravagant. They plan to reunite on his release. His wife writes to him regularly. She is employed as a waitress.

A.'s natural father was born in Colorado and was 46 years of age at time of study. He was divorced by A.'s mother when A. was eight years old because of infidelity and cruelty. Father has remarried three times since then. Father is an electrician by trade and earns about \$230.00 per month. Father drinks, but seldom to excess. He is moody, at times friendly—at other times hostile. A. had little emotional attachment to father during early life and is resentful toward him now because of his treatment of A.'s mother, and his unwillingness after the divorce to contribute to the support of the family. Father has had no court record.

A.'s mother was born in Minnesota. She died at age of 43 of an organic disease. Mother was a good housekeeper and never in any trouble. Subject was fond of mother and expressed sorrow over her many troubles.

A.'s step-father was born in Iowa. In Los Angeles he owned a small mercantile business from which he made enough to support family. He was a moderate drinker. His leisure time interests were the radio and reading. A. stated his step-father treated him very well—much better than did his own father. A. liked step-father the better of the two and summarizes former's personality as "intelligent, kind, and understanding."

A.'s brothers are in the service. He denies any unusual conflicts with them in the home. A. especially liked his next older brother now in the Marines overseas.

No data were obtained about A.'s grandparents or collaterals.

The Criminal History:

A. is in state prison for the first time. He said: "I was working at the time I committed the offense but was very much in debt. It took all the money I could make to keep

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up with the payments to a finance company. My wife was pregnant at the time and later lost the baby. I thought by committing the burglary I could even up my debts and start anew. I now realize my mistake. While out on bail I worked even harder and cleared my debts—something I thought I couldn't do."

A. was arrested on June 1, 1944, for burglary in that he stole tools and equipment from a neighbor's garage and sold them. He was sentenced to prison on September 13th, 1944, for burglary, second degree. The report of the F.B.I. showed that A. had been arrested previously for a similar offense in 1942, had spent three months in the Los Angeles county jail, and was on probation at time of present arrest. The court recommended that his probation be revoked and that A. be sent to San Quentin for a term of from one to five years.

Medical Examination:

A. is a healthy, well nourished man. Height 5'9"; weight 149. Eyes normal, teeth good. No evidence was elicited of any physical disease or handicap.

Vocational Study:

The most significant work experience A. has had was in the electrical and refrigeration business. He stated that he had worked for a number of years, part-time, and understands much in regard to general electrician's duties and the repair of mechanical refrigerators.

A. was interested in the testing and interview situations and cooperated in developing a plan for training in one of the institutions. At the beginning of interviews he was more or less inclined to overrate his ability, especially dealing with electrical work and work dealing with refrigeration. He understands much of the vernacular in both fields and throws the words around carelessly. However, when asked to give reason for short-cycling in a domestic refrigerator, A. was unable to give even the most obvious.

A. attended no special school nor has he acquired special

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training in the above-mentioned areas of occupation. Conversation and answers to trade questions indicated he understands only the general and not the specific. He understands the installation of fixtures and outlets, etc. However, A. does not understand the hook-up for single circuit and two-way circuits in connection with house wiring. Conversation reveals that he has worked on mechanical refrigerators sufficiently to be considered a good secondary man, yet he does not understand principles involved and would be definitely handicapped in solving trouble problems.

A. is interested in becoming an electrician, because he has followed this work during his high school days and later. His expressed interest is higher than his measured interest, his measured interest in mechanics and science being in the 80 percentile on the *Kuder Test*. Mechanical aptitude on the *Minnesota Test* was at the 50 percentile and comprehension was at the 70 percentile. The last tests indicated that A.'s ceiling will be more or less low in advancing as an electrician. It will be necessary for him to apply himself diligently in order to achieve the necessary concepts if he is to become an independent worker.

Religious History and Analysis:

A. has not attended church since early childhood when he accompanied his mother to the Presbyterian Church in the community where he lived. He claims to be interested in attending church services while in prison.

Initial Adjustment to Prison:

A. has been very cooperative everywhere in the Guidance Center. In school there are excellent reports of attitude and interest. A. studied some shop mathematics at night in his cell and brought written work to class. His supervisors on the work projects reported excellent attitude and willingness to work and good care of tools and equipment and superior habits of work. In the living situation, likewise, all reports were good.

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Personality Summary (psychological and psychiatric):

On the *Otis Group Test*, A. received an I.Q. of 102. His average intelligence was confirmed also by the *Belle-vue-Wechsler*, I.Q. 107. On the *Shipley* he had a mental age equivalent of between 16 and 17. On the *Cornell*, there were seven (7) aberrant responses. No outstanding abnormalities appeared. *Rorschach* not administered.

The psychiatrist found no gross nervous instability, nor any evidence of psychopathy. A. was reported as cooperative and willing, with good insight into his problems. The subject's delinquencies may possibly be explained on the basis of early familial instability—loose parental affiliations and discord between the parents in early life. A. has been impulsive and has used poor judgment in his personal affairs. He makes a good appearance, has a likeable personality, and now seems to be ambitious to succeed. He may be diagnosed as a delinquent of normal intelligence with no apparent serious emotional or nervous abnormalities, who is now quite chastened in his attitudes and serious in his ambitions to succeed in the prison and thereafter.

Recommendations:

Transfer to the California Institution for Men at Chino, where he can be placed under minimal custody. He is a good risk for the responsibility placed upon men in this institution.

Treatment for this young, first offender should emphasize vocational and educational advancement. He should be encouraged to complete his last year of high school with particular emphasis upon mathematics, English composition, and speech. A. is interested in electrical and refrigeration work, but his previous work has been mainly as a helper. It will require considerable effort on his part to acquire the necessary skills and knowledge in the above fields. He should be encouraged to do so.

Religious experiences should be planned for him. The chaplain will find A. cooperative and interested. Perhaps some effort should be made to elicit similar religious in-

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terest on the part of his wife. The chaplain may be able to help her in adjusting to the present and future situation with her husband.

When he leaves Chino, A. will need to have some definite recreational interests. These should be explored with him and cultivated while at Chino.

From the personality standpoint, A. will need occasional interviews to permit a discussion of his needs and attitudes. Perhaps the chaplain could help him somewhat since no evident psychopathy is present and Chino does not have either a psychologist or a psychiatrist on its staff.

In summary, this 22 year old first offender presents a challenge to Chino as a treatment agency. He seems sincerely contrite over his crime and anxious to make a good record in prison and succeed thereafter on his return to society.

This case study, as is obvious, portrays an individual such as might be encountered in any high school or college, or in an adult class, except for the criminal record. It shows a fairly complete pattern of analysis and should thus point the way toward adequate guidance practice in the field of education.

NOTES ON THE CHAPTER

1. The author is grateful to the staff of the Guidance Center of the Adult Authority of California for their critical reactions to this statement.

2. William Burnham, *The Wholesome Personality* (New York: D. Appleton-Century Company, 1932).

3. Arthur E. Traxler, ed., *Guidance in Secondary Schools* (New York: Educational Records Bureau, 1939).

4. Norman Fenton and Roy Pryor, *The Guidance Program of the Menlo School and Junior College* (Menlo Park, California, 1943).

5. See fourth reference under General References.

6. Carl R. Rogers, *Counseling and Psychotherapy* (Boston: Houghton Mifflin Company, 1942).

7. Mary Sayles, *Child Guidance Cases* (New York: Commonwealth Fund, 1932).

8. Peter Blos, *The Adolescent Personality* (New York: D. Appleton-Century Company, 1940).

9. The case has been briefed. All identifying data have been changed.

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PART III

SCIENCE AND EDUCATION

CHAPTER XVI

SOME IMPLICATIONS OF SCIENCE FOR EDUCATION

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The problem of adjustment. Biologists emphasize the fact that the chief problem of every organism from birth to death is adjustment. Anthropologists and historians have produced convincing evidence that nowhere is this more true than in the case of man. Hu Shih, the distinguished Chinese philosopher, summarizes the situation as follows:

The civilization of a race is simply the sum-total of its achievement in adjusting itself to its environment. ¹

It must, of course, be recognized that man's problem of adjustment is more complex than that of the other animals. His environment is one of people and of ideas, as well as of things. Not only does man have the problems of food and shelter along with other forms of animal life, he has also the more difficult problems of getting along harmoniously with his fellows, and of acquainting himself with the cultural achievements of the race. At times he must also wrestle with the problem of reconciling conflicting impulses and desires within himself. It is apparent then

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that man has not only the problem of biological adjustment but of sociological and psychological adjustment as well.

Man's dominant position on the earth has been due to his greater ability to bring about the necessary adjustments largely through the fortunate possession of a more flexible hand and a superior nervous system. These advantages have made it possible for him to achieve adjustment both by changing his environment and by changing himself.

Achievements of science. The success of man's efforts to change his physical environment to make it conform to his wishes and better to serve his needs has been especially notable during the last two centuries. That this modern technological civilization rests fundamentally upon power-driven machinery and experimental science is too well known to require elaboration. Within hardly more than one hundred years, through the practical application of science, man's physical environment has been largely transformed. Toward the close of the nineteenth century Louis Pasteur, one of the greatest scientists of the day, made this statement:

In our century science is the soul of the prosperity of nations and the living source of all progress . . . What really leads us forward are a few scientific discoveries and their applications.²

Attention should be called to the fact that while science has solved some important problems it has as yet left untouched many others equally important, and it has created still others. It may well be doubted whether man has himself become adjusted to the complexity and speed of this strange new world he has created. In the "Epilogue" of *Whither Mankind*, the distinguished American historian Charles A. Beard arrives at what he terms two "grand conclusions."³ The first of these is as follows:

Old rules of politics and law, religion and sex, art and letters — the whole domain of culture — must yield or break before the inexorable pressure of science and the machine.

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The second and more optimistic conclusion is that

by understanding more clearly the process of science and the machine mankind may subject the scattered and perplexing things of this world to a more ordered dominion of the spirit.

In other words, the age of science has brought to education new responsibilities and new opportunities.

Science and education. It is not surprising that the achievements of science have greatly influenced education. The machine has created new educational agencies such as the press, the radio, and the motion picture. And, as usual, the educational practices of the school as an institution have tended to lag far behind the educational theories of its leaders.

Influential thinkers such as Dewey have stressed the functional value of knowledge and have stated the aims of education in such terms as "growth," "development," and "adjustment" borrowed from the biological sciences. It is apparent to the most casual observer that the complexity of modern life has accentuated the need for educational and vocational guidance as well as for co-operative living. The rapid changes in the ways of living which have come and bid fair to continue emphasize the need for uninterrupted education which extends beyond the usual formal school period, and a type of education which stresses thinking and flexible modes of response rather than mere habit-formation.

Any educational program which makes a serious effort to assist the learner in understanding either himself or his world must give a large place to the sciences. The case has been well stated in a recent report of the Educational Policies Commission⁴ as follows:

An educated person will understand that science is based upon methods, which men have slowly and painstakingly developed, for discovering, verifying, organizing, and interpreting the facts about the world in which we live and about the people in it.

He will know that the use of scientific methods has

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worked revolutionary changes in men's ways of living and thinking.

He will see that the methods of science are one of mankind's chief instruments for making further progress.

He will know that most scientific advances have depended upon precise measurement and accurate calculation and that mathematics is indispensable to scientific inquiry.

He will recognize that problems in human society, as well as in the physical world, should be attacked by scientific methods and from a scientific point of view.

He will be familiar with certain fundamental principles and facts from the sciences, which, when taken together, give him a sound view of the nature of the world in which he lives.

Educational Implications of the Scientific Attitude

Nature of the scientific attitude. It is useful to make a distinction, even if a somewhat arbitrary one, between the scientific attitude or spirit of science and the scientific method. One can hardly employ the scientific method without possessing in some degree at least a scientific attitude, although one might catch somewhat the spirit of science without making extensive use of the method of science. Francis Bacon, a contemporary of Galileo, made no great scientific discovery and yet was so imbued with the spirit of the new experimental science that he became one of its most eloquent advocates. It would be difficult to find a better statement of the scientific attitude than Bacon's analysis of his own mental processes:

I possess a passion for research, a power of suspending judgment with patience, of meditating with pleasure, of correcting false impressions with readiness, and of arranging my thoughts with scrupulous pains. ⁵

All great scientists have possessed an inquiring mind, a "passion for research," as Bacon puts it. Intellectual curiosity of a high order and a genuine thirst for knowledge are prominent characteristics. The willingness to suspend judgment until the facts have been assembled and to maintain at all times an unprejudiced mind open to the truth,

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combined with a readiness to correct whatever false impressions that may arise, are fundamental attributes of the scientific mind. Other qualities are patience, caution, and a keen sense of order.

Although the scientific mind shows a wholesome respect for facts at all times, it is doubtful if any quality is more characteristic of the true scientist than the tentative attitude he takes toward all knowledge regardless of its source. Nowhere is this attitude more needed, or frequently more difficult to find, than in education. Leaders in education have often been accused of being faddists, and at times considerable evidence exists to support the charge. There is much wisdom in the statement of a prominent thinker in the field whose testimony may be regarded as that of an expert witness: "Remember there are no *last* words in education, only *latest* words." Even if education were today a full-fledged science, a claim that few would be willing to make, the position is fundamentally sound. In fact, the strongest possible support comes from the record of experimental science itself. Nobody whose judgment can be trusted pretends to know everything about anything.

Scientific attitude as an educational objective. So important for the ordinary citizen are the attitudes of mind found in all great scientists that the suggestion has been made to set up the scientific attitude as a worthy objective of the school. Certainly the rarity with which it is met in such important areas as government and religion is proof that it is unsafe to assume that the scientific attitude is a natural by-product of life in a scientific age or will arise from incidental teaching in school.

The following statement made by Caldwell and Slosson more than twenty years ago would appear to be essentially sound, although somewhat overcautious and overoptimistic:

Tremendously powerful for good and for ill as are the material advantages gained through modern science, it is possible that still greater advantages may be gained through certain attitudes of thinking, judging, and acting

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which modern science is patiently teaching to a slowly learning human race. ⁶

The modern point of view is well expressed in the following quotation:

Content, then, as stated above, is to be used by the teacher as a means to an end. With the unit concept, the scientific attitude is the end sought. In this age of rapidly increasing content in the field of science, it would be futile to attempt to select any body of subject matter as a goal in teaching. The true objective is the residue which accrues to the pupil in the form of scientific attitudes and habits of scientific thinking. ⁷

Educational Implications of the Scientific Method

Nature of the scientific method. Bertrand Russell asserts that the essence of the scientific method is the discovery of general laws through the study of particular facts. He describes the process as follows:

In arriving at a scientific law there are three stages: the first consists in observing the significant facts; the second in arriving at a hypothesis, which, if it is true, would account for these facts; the third in deducting from this hypothesis consequences which can be tested by observation. ⁸

It is apparent that Russell has in mind pure science rather than applied. As a matter of fact, the two are closely related and employ essentially the same method. They differ only in purpose: pure science aims primarily at understanding man and his environment, whereas applied science aims at predicting and controlling their behavior.

Unfortunately man has been slow to appreciate and utilize the possibilities the scientific method has placed at his disposal. The situation has been well stated as follows:

If society were only to order itself upon the basic principle that science in its discoveries and in its method has

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given to mankind as a whole the master key to freedom from terror and uncertainty in the face of nature; that by liberating mankind as a whole from physical want and toil and worry and hurry, it has freed us to explore and cultivate by the same methods the intellectual and spiritual resources of mankind, then should we have a genuine renaissance. ⁹

Scientific method as an educational objective. Since man has been so slow to realize the enormous possibilities of the scientific method, educators have come to set it up as a specific objective. The Educational Policies Commission asserts that "scientific competency" would require that young people "acquire an understanding of, and practice the scientific method."¹⁰

Apparently this objective is being realized only imperfectly even by teachers of science. Beauchamp analyzed 58 courses of study in general science, 45 in biology, 27 in physics, and 30 in chemistry published since 1925. Fewer than half of these courses recognized that science teaching should be concerned with "ability to think scientifically," and only two courses in biology of those examined attempted to develop an "appreciation of the contribution of the scientific method."¹⁰

That the situation is little less than tragic has been clearly seen by our greatest educational philosophers who recognize the inadequacy of any educational program for a rapidly evolving civilization that is conceived in terms of habit-formation and the impartation of information. Kilpatrick, for example, asserts that "our young people must learn such general and flexible techniques as promise to serve them in that unknown future."¹¹ Bode states the case in figurative language:

For the power to think is the educational kingdom of heaven; if we seek it persistently, other things will be added unto us. ¹²

Dewey is more specific. He expresses regret that science in school is commonly taught merely as "another subject," with attention on conclusions rather than method:

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For the heart of science lies not in conclusions reached but in the method of observation, experimentation, and mathematical reasoning by which conclusions are established. ¹³

Dewey goes on to point out that science as a method should permeate all school subjects. "Only as a living spirit of dealing with all subjects, engrained in all the procedures of learning," he concludes, "can science create the values inherent in it as method."

Scientific method as a teaching technique. A corollary of accepting scientific thinking as a worthy educational objective is the recognition that it must be employed as a teaching procedure. The only way to attain any skill is by practice in it. The ability to think is no exception to this principle. There are some who go well beyond this position and seem to advocate the scientific method as the one valid teaching procedure. Doughton, for example, discusses what he terms "the broad view of method in education" and comes to the conclusion that

teaching is concerned with the prediction and control of behavior, and can follow effectively the essential procedures which other sciences have followed in predicting and controlling natural activities. ¹⁴

All learning begins with a problem, a confused situation for which the learner has available no adequate response. It ends when the problem has been solved; that is, when a satisfactory response of some sort has been made. The successful response may be hit upon by so-called "blind trial-and-error," by conscious imitation, or by reflective thinking.

It is customary to recognize five more or less distinct stages in the thinking process, following rather closely Dewey's analysis. They are listed below in rough chronological sequence, although two or more of the phases may be in progress at the same time, and some of them may have to be repeated several times.

First comes the difficulty, or "felt need." A motivated

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individual finds his behavior blocked by some obstacle, resulting in a condition of maladjustment.

The second step sees the beginning of the search for a solution. The problem is scrutinized carefully, and an effort at diagnosis is made by attempting to interpret the situation in the light of past experience. A search for further relevant data may be instituted. One advantage of group thinking is that the experience of several persons may be pooled.

In the third step certain hypotheses appear. Here in a rather mysterious manner a series of suggested solutions pass in review. Some eminent scientists have observed that these sudden insights often come during a period of relative inactivity following a period of intense exertion. This is one of the reasons why the scientific method must never be regimented or hurried. There must be the spirit of freedom which is characteristic of democratic living at its best.

In the fourth step the various hypotheses are carefully weighed and evaluated. An attempt is made to foresee the consequences or implications of each suggested solution. The process may involve imaginary experiments or recourse to books or other written records. At this stage the less promising hypotheses are weeded out and eventually only one survives. The solution really "looks" as if it ought to work.

The fifth step involves the pragmatic test. This most promising solution is now subjected to an actual trial. If it works, it is accepted as true. In that case, all that remains for the learner to do is to generalize his experience in some convenient verbal form so as to make it available for future use when similar situations arise. But if the hypothesis does not survive the experimental try-out, it is still by no means a total loss. The experience has been valuable and may often cast the new light upon the problem required for a successful solution. As Dewey says, "The person who really thinks learns quite as much from his failures as from his successes."¹⁵ The last four steps must be repeated as many times as necessary to find an hypothesis which meets the test of an actual trial.

It will be noted that as outlined above learning by re-

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flective thinking parallels very closely the procedure employed by the experimental scientist. He, too, starts with a problem, assembles and classifies a body of relevant data, examines critically whatever hypotheses occur to him, and submits the most promising to experimental verification.

Progress toward a science of education. It is still a debatable question as to what extent education is today a science. It is of course apparent that education is a science, only to the extent that it utilizes the methods of science, has accumulated a body of facts by controlled observation, and has arrived at explanatory principles which have been experimentally verified.

While it can scarcely be claimed by the most enthusiastic educator that we have today a fully-developed science of education, it is undoubtedly true that more progress has been made in that direction since 1900 than in all the preceding centuries put together. As one historian points out, "Early in the century, education came to reflect the methods and philosophy of the machine age."¹⁶

Several factors contributed to this condition. One of these was the public school survey which came into existence about 1911. This movement helped to lift school administration from the level of guesswork and rule-of-thumb procedures to one which in theory at least was increasingly scientific.

Still more important was the influence of experimental psychology discussed at length in Part II of this volume. The laboratory technique applied to the study of learning, first of animals and later of humans, tended to place teaching methods upon a much sounder scientific basis.

Most important of all was the measurement in education which got under way shortly after the turn of the century. The development of statistical methods, of instruments for the measurement of learning, aptitude, and school achievement made it possible for the first time to apply the methods of experimental science to the study of educational problems.

The teacher or supervisor whose vocabulary lacks such cryptic words or terms, as "mean," "median," "mode,"

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"coefficient of correlation," "probable error," "mean deviation," "standard deviation" and "I.Q." is rapidly becoming a relic of an earlier and unscientific age. ¹⁷

Since 1900 there has occurred a phenomenal advance both in the quality and quantity of educational literature, due in large measure to the application of scientific methods to the study of education and the eagerness of teachers to acquaint themselves with these newer developments. College courses in education have multiplied rapidly to meet the popular demand. The situation has been graphically described as follows:

Courses in various phases of "school administration" and "school statistics" multiplied rapidly, and the necessary textbooks soon came from the presses, while teachers, principals, and even staid and sometimes elderly superintendents went back to school and college and university to catch up with the developments. The educational literature in books and periodicals took on a technical character, and teachers' institutes and educational conventions began to appear like meetings of industrial efficiency engineers, while the old-fashioned schoolmaster and mistress began to get giddy with the whirring of technical machinery and the jargon of technologists. Old-fashioned academic professors now stood aghast as they watched the academic mills grind out "Masters" and "Doctors" for classwork and theses that appeared to belong more in the engineering departments, and only reluctantly have they welcomed these birds of strange lineage and plumage into the academic preserves. ¹⁸

But it takes time to develop a new science. It is no reflection on the scientific movement in education when one is forced to admit that education has not as yet arrived at the full stature of a science. Its status at the present time can be only approximately determined. The period of infancy probably lies safely in the past, and its cocksure and arrogant behavior at times indicates that adolescence may be not far away. The data with which education deals are vastly more complex than those of the physical sciences, and the problems of adequate measurement of the less tangible, and often more important, outcomes of teaching are much greater. Furthermore, scientific experimen-

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tation in education is inherently difficult. On the one hand, if the conditions are rigidly controlled, as in the laboratory experiment, the situation is likely to be highly artificial; and, on the other hand, if the experiment is conducted under natural classroom conditions, so many variables are present that it is usually impossible to determine their relative importance in producing the results. It is therefore not surprising that much of educational experimentation is fragmentary and inconclusive. Very few generalizations in education can be said to have attained the dignity of scientific laws.

Educational Implications of the Content of Science

As scientific knowledge has become an increasingly important part of modern culture it has tended to influence more and more the school curriculum. The year 1751, the date of the founding of the Philadelphia Academy by Benjamin Franklin, is often suggested as the time when natural science first entered the curriculum of the secondary school. While it is true that Franklin proposed that the study of science be accompanied by observation and actual practice in gardening, it was not until after the passing of the Morrill Act in 1862 that anything like a science of agriculture developed.

In 1859, a date made famous by the appearance of Charles Darwin's *Origin of Species*, Herbert Spencer published a very influential essay entitled, "What Knowledge is of Most Worth?" That this was an eloquent plea on behalf of science is evident from the following quotation:

Thus to the question with which we set out — What knowledge is of most worth? — the uniform reply is — Science. This is the verdict on all the counts. For direct self-preservation, or the maintenance of life and health, the all-important knowledge is — Science. For that indirect self-preservation which we call gaining a livelihood, the knowledge of greatest value is — Science. For the due discharge of parental functions, the proper guidance is to be found only in — Science. For that interpretation of national

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life, past and present, without which the citizen cannot rightly regulate his conduct, the indispensable key is — Science. Alike for the most perfect production and highest enjoyment of art in all its forms, the needful preparation is still — Science. And for purposes of discipline — intellectual, moral, religious — the most efficient study is, once more — Science.

It will be noted that Spencer argued for the disciplinary value of the study of science as well as the practical. Under the influence of faculty psychology this aim came to play a dominant role in science teaching a few years later. A strong reaction against the mind training theory of education set in about 1910, but it has not yet disappeared from the science curriculum, especially at the college level. The school today as possibly never before is pushed and pulled in opposite directions. According to Dewey, "We do not as yet have an educational or any other social institution that is not a mixture of opposed elements."¹⁹

Science itself is responsible not a little for this confusion and hesitation. Some of the ideas from the physical, biological, and social sciences which have influenced education and are continuing to influence it will now be considered.

Concepts from the physical sciences influencing education. The physical sciences, astronomy, physics, and chemistry, were the first to break away from philosophy and set up in business for themselves. It is to these sciences, then, that the spirit and method of experimental science owes its origin. It is also largely the practical applications of physics and chemistry which have transformed man's physical environment.

But science has done more than change our material world. As Compton says:

Even more significant than the improvement in man's physical well-being is thus the change that scientific thought has made in man's attitude toward life. ²⁰

The views of modern physics, for example, have greatly influenced the thinking of the modern man, while its dis-

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coveries have altered his physical habits. The educational implications of three of these ideas will now receive brief consideration.

First, is the concept of natural law. The idea that scientific laws represent ultimate truth about nature is no longer held by science. As Sullivan says: "Science is still an adventure, and all its 'truths' are provisional."²¹ Scientific laws and theories are regarded as merely

working hypotheses that on one hand condense the results of continued prior experience and inquiry, and on the other hand direct further fruitful inquiry whose conclusions in turn test and develop for further use the working principles used.²²

Many scientists, however, take the optimistic view that when better truths are to be had science will provide them.

It will be recalled that Newton's important laws of physics were formulated on the basis of experiments with objects of ordinary size, and later many of them were shown to be applicable to planetary bodies as well. It was naturally assumed that they would apply equally well to electrons, protons, and neutrons, those excessively minute particles within the atom. Much to the surprise of physicists a generation ago, Newton's well-known laws of motion had to be modified and extended to make them fit these minute data. A scientific theory or law is never anything more than a concise description of an observed uniformity in the phenomena of nature, and is always subject to revision in the light of subsequent observation.

A second concept of modern physics, the idea of causation or "cause and effect," has implications for education. It was an even more startling discovery of physics that the laws of motion did not afford an accurate prediction of just where a particular electron would be at some future time; however much might be known about its present position and motion. The best that could be done was to determine the "chance" of its occurrence. In other words, instead of absolute certainty we have only the statistics of probability. "According to modern physics," says one of

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our most eminent physicists, "we thus live in a world of chance."²³ Compton goes on to assert that the abandonment of the idea that natural phenomena obey exact laws is "perhaps the most significant revolution in the history of scientific thought." He also points out that uncertainty in small scale events may produce uncertainty in an event of great magnitude:

Concerning the complexity of the small-scale events associated with any of our deliberate acts, one may say with assurance that on a purely physical basis the end result must have a relatively great uncertainty.²⁴

Since education is manifestly concerned with "deliberate acts" which appear to have a "relatively great uncertainty," any attempts at prediction and control in this field are beset by inevitable difficulties. All efforts of educational and vocational guidance, for example, which must rest fundamentally upon our ability to predict future events, will always involve a considerable error. The decisions must be tentative and subject to revision in the light of subsequent developments. This will no doubt always be true, whether or not the case rests ultimately upon the uncertainty principle of quantum mechanics. Any act of human behavior is the resultant of so many factors, most of which are only partially known, if at all, that the best we can hope for is a fair degree of probability.²⁵

Perhaps the two most revolutionary concepts of modern physics are the relativity theory of Einstein and the quantum theory of Planck. Both represent essential modifications of the older laws of Newton formulated two centuries earlier. But neither theory has so far influenced educational thought very much and educational practice not at all. Something akin to Heisenberg's principle of indeterminacy or uncertainty in atomic physics, which holds that every act of measurement necessarily interferes in some degree with the thing measured, does rise to plague us in our efforts to measure intelligence, character, and other aspects of human personality. Moreover, in some slight degree, perhaps, the swing away from the old absolute

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percentage system of marks and toward some relative or curve system shows the influence of Einstein. It has also been observed that in marking essay examinations the value assigned the paper tends to be relative to the papers immediately preceding. For example, an average paper may be rated B, if it is read just after a failing paper, but only D, if read after a paper of outstanding merit. But such notions of relativity in educational measurement, though of some importance, reflect a popular conception of the term rather than a scientific.

Concepts from the biological sciences influencing education. It is probable that the influence upon education of the biological sciences has been far greater than the influence of the physical sciences. The most influential single idea has been evolution as first advanced by Charles Darwin in 1859. The theory emphasizes the slow process of development from simple to complex forms of life on the earth. It attaches much importance to natural selection, the struggle for existence, and the survival of the fittest.

One of the first to recognize the important relationship of organic evolution to psychology and education was G. Stanley Hall. He held that mental and physical life are always parallel and have evolved together through millions of years. He championed the idea, no longer seriously held, that each individual recapitulates or lives over again all the stages through which the race has passed. He pointed out that education to be effective must be appropriate to the stage of maturity of the learner at the time. One of his slogans was, "Don't cut off the tadpole's tail."

Toward the close of the century Edward L. Thorndike conducted extensive experiments in animal learning according to a pattern upon which comparative psychology has continued to rest. For a time, so impressed were psychologists and educators with man's kinship with the lower animals that the results of experiments with rats in mazes and cats in puzzle boxes were applied without reservation to the classroom situation. In recent years, however, it has been recognized that only studies with human subjects afford a safe guide for educational practice.

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Probably most influential of all have been the writings of John Dewey, born by a curious coincidence in 1859, the year Darwin's *Origin of Species* was published. He advances a theory of education and of knowledge in harmony with the hypothesis of biological evolution. Education is synonymous with growth, and represents a continuous process of adjustment. All human knowledge is a social instrument, which has come about as a result of the struggle for survival. The school is a social institution whose primary function is to provide conditions which insure healthy growth.

Weismann's experiments which undermined belief in the biological inheritance of acquired characteristics served to emphasize further the importance of social heredity, the transmission through education of the cumulated experiences of the race to each succeeding generation.

Concepts from the social sciences influencing education. Closely related to the concept of organic evolution is the idea of progress or social evolution. This idea has been declared to be the

most dynamic social theory ever shaped in the history of thought — the idea of progress or the continual improvement in the lot of mankind on this earth by the attainment of knowledge and the subjugation of the material world to the requirements of human welfare. ²⁶

Although the idea of progress antedates Darwin's theory of biological evolution, the growth of experimental science was a powerful factor behind it. The school itself is a splendid illustration of the evolutionary process at work in a social institution.

It is generally recognized that progress depends mainly upon two things, science and education. One of the most distinguished physicists of our day puts the situation as follows:

The great instruments of progress for mankind are then research, the discovery of new knowledge, and education, the passing on of the store of accumulated wisdom to our followers. This puts the immediate destinies of the race, or of our section of our country, largely in our hands. ²⁷

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Other important social concepts, such as democracy, liberty, freedom, and the like, place a special responsibility upon education. As external control is relaxed it must be replaced by an increasing reliance upon the development of self-control. The intelligent cooperation upon which the success of a democracy depends must be learned in school. This is the justification of an elaborate system of public education. With the increasing complexity of modern civilization the trend is toward a corresponding increase in the role of education.

That modern education owes a great debt to science there can be no doubt. A recent history of education enumerates thirteen "changes in fundamental principles and attitudes," most of which bear some marks of the influence of science. The first three are as follows:

(1) The development from scholastic philosophy, with its conception of a perfect revelation and complete knowledge, to the idea of knowledge as relative and instrumental.

(2) From the idea of a society as unchangeable and life as determined, to the theory of indeterminate social evolution.

(3) From the feudalistic conception of social organization with sharply defined classes and ranks, to the democratic doctrine of inalienable natural rights and of individual ethical and social worth.²⁸

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CHAPTER XVII

THE NATURE OF THE LEARNER

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The increased attention to the nature of the learner has been an important aspect of progress in twentieth century education. A shift in emphasis, in both elementary and secondary schools, from subject matter to children has led actually to a more adequate understanding of the whole learning process. Gradually, broader conceptions of scientific method have replaced concentrations either on the learner or on his social environment by a deeper study of the relation of the learner as he *is* to the person he *becomes* through experiences that include social contacts and the use of cultural skills such as drawing, reading, and writing. Consequently, those concerned with the education of youth can no longer think of the nature of the learner as something fixed, definite, and static on which the scientific finger can be firmly placed. The fundamental fact is that the learner is by nature lively, growing, developing, dynamic.

Although we say, "Teachers, like other workmen, must know their materials," this common analogy calls for criticism to clarify the differences between the situation of the educator and that of the man who makes finished products out of dead materials. The trustworthy carpenter, for example, carefully selects sound, seasoned fir for joists, and clear, kiln-dried oak for flooring, measures his lumber

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accurately, and fits it neatly according to plan. The artist, permitted by circumstance to be more creative than the carpenter, not only chooses his medium with discrimination but really struggles with his paints or clay.¹ The tension between the creative artist and his medium presents a closer analogy to the art of teaching than does the direct relationship between the mechanic's specifications and his work, but further differences are important. Parents, teachers, and others who attempt to guide youth cannot choose among them in most cases but must deal with all the human materials coming to them. These adult guides are, nevertheless, even more concerned to understand the very nature of the youngster because in a democratic society we aim at the optimum development of each individual. We all recognize, however, that the human beings with whom we work differ from the carpenter's materials and the artist's mediums also because each individual is the product of a *continuing* history, and so his nature changes more or less as we work with him. Therefore, many current efforts to improve teaching are moving toward helping teachers in the complex, many sided process of understanding children.²

Surely, the primary requisite in beginning this study is a certain humility, which is characteristic of scientific research, concerning our knowledge of human nature and human development. For, as we shall see, recent studies indicate that the individual learner is largely unpredictable in ability and indeterminate in many aspects of his behavior, since he is the outcome of an indefinite combination of hereditary and environmental influences with potentialities that may be discovered experimentally from month to month as they change and grow. Lest we overemphasize the uncertainties we face and become discouraged, it is reassuring to think of the limits of probability established for groups, the reliable sequences of development discovered, the norms of behavior found for various age levels, the validity of case histories for the prediction of the probable behavior of individuals, and the general principles that sum up and interpret the processes of learn-

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ing and teaching. Today our understanding of the learner is more soundly scientific than ever before, partly because we do face more candidly our earlier misconceptions, the numerous gaps in our knowledge, and the difficulties involved in generalizing about diverse age levels and differing individuals.

Heredity and Environment

In the first place, the nature of the learner is not a product solely and directly of heredity. It is true that the characteristics of each individual depend in considerable measure upon his biological inheritance through his parents from past generations of humankind and beyond. Without minimizing the profound differences in the hereditary materials transmitted to each child, we must state at once that their effects are somewhat indefinite and largely unpredictable as far as the particular person is concerned. Experimental studies of the embryos of certain lower animals show that the processes of growth in the early stages depend in part upon the *position* of the cells relative to each other and not alone upon the kind of hereditary materials each cell contains. In fact, the differently developing cells contain the same combinations of hereditary materials, so their differences in development depend upon position. The proof of this statement lies in experiments in which cells that in their usual position would have become part of the skin were transplanted to another position and consequently became part of the brain. Other changes in position were followed by equally drastic changes in cell characteristics. These studies of the effect of position, when considered with the effects of hormones and various environmental factors, warn the student against assumptions that make even specific characteristics, such as eye color, depend directly and solely upon certain hereditary materials, although differences in eye color in man and the fruit fly are due, so far as is known, to diversity of genes. In this connection, Jennings, the distinguished biologist, says: "The fact that a charac-

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teristic is 'hereditary' (alterable through changing the genes) does not imply that a way may not be found for changing it by the operation of the environment."³ If some biologists doubt the advisability of maintaining fixed ideas about the relation of heredity to a simple characteristic, like eye color, it is well, certainly, for the student of child development to be on his guard against thinking of complex behavioral characteristics as directly caused by hereditary materials. From the very beginning of life, long before the child is born, his growth and behavior may be modified in many ways by factors, such as nutrition, which must be regarded as environmental. In other words, it is soundly scientific to think of "the nature of the learner" from the moment of conception as having developmental characteristics achieved from day to day through the interaction of various influences, which are commonly classed as either hereditary or environmental.

Educators who are thinking scientifically about these biological factors are substituting for the old antithesis between heredity and environment a term like "nature-nurture," meaning heredity (nature) and environment (nurture) united and inseparable in the single process of development.⁴ Since it has been demonstrated that heredity is not a primary, directly acting factor in many cases, it becomes evident that development is not determined fully in advance, because environmental factors, which are constantly acting, may vary (within rather broad limits) at any time. Consequently, the development of the individual cannot be predicted completely in advance because of the indefinite factors involved. Even a much fuller knowledge of the processes of inheritance than we have today would not make possible a complete picture of the learner's nature. The individual must be studied experimentally and empirically from time to time to determine what current abilities, interests, and attitudes are being evolved through "nature-nurture."

Family Resemblances and Differences

Fortunately, there are degrees of similarity between

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parents and their children, and between brothers and sisters, which can be predicted in terms of probability. These data may guide teachers who use them with discretion. The general finding is that the resemblance in mental ability is marked, being represented by a correlation coefficient of approximately .50. So the teacher may expect a child to be much like his parents and siblings. This marked resemblance in families needs careful interpretation, however, for the resemblance is influenced in most cases by the similarity of home and community environment as well as by biological inheritance, because parents usually "bring up" their own children, and siblings live together under the same roof. The probable resemblance is actually a result of "nature-nurture," not of one set of factors or the other separately. Studies of twins throw further light upon the joint influence of nature and nurture. Fraternal twins, who, like ordinary siblings, are produced by *diverse* combinations of hereditary materials from the same pair of parents, have a greater resemblance in general ability, represented by the correlation coefficient of .70, than the non-twin siblings with the average correlation coefficient of .50. This greater degree of resemblance is believed to be due to the similarity in the prenatal and postnatal environments encountered by fraternal twins. When studies are made of identical or monozygotic twins, who are produced from exactly the same combination of hereditary materials, their resemblance to each other in behavior is found to be still more marked, represented by the correlation coefficient of .85. The reliable difference between .85 and perfect, positive correlation, 1.00, is accounted for in environmental terms. When the differences in the postnatal environments of identical twins are increased by rearing them in different foster homes, the similarity in one or more traits is often reduced significantly by the difference in the environments.⁵ On the other hand, when the change in the children's environment is toward similarity, the effects are reversed. For example, one scientific study comes to the conclusion that "unrelated children in the same home resemble each other fully as

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much as do brothers and sisters who are in different homes."⁶ Such findings concerning the varying degrees of family resemblance guide the teacher and parent into cautious expectations depending upon the way in which biological parentage and the sharing of a common home environment are joined. Certainly, the value to the teacher of intimate knowledge of the diverse homes of the pupils is emphasized by these studies.

Further caution is needed, however, because the correlation coefficients mentioned above are *averages* that are reliable statements only when applied to large groups. The resemblance of any one individual to his parents or to a particular sibling may be either much greater or much less than average degree of resemblance represented by the correlation coefficient of .50. Considering heredity first, the complexity of human inheritance is so great that no important characteristic such as general ability, temperament, or health can be reduced to a simple formula, like the Mendelian, which is applicable in certain plants and animals to a few specific physical characteristics. The mixture of family lines among humans is so great and the hereditary processes so complex that within any family in which the parents have average ability any particular child may be very dull or very bright, although in most cases he will be nearer to average intelligence than to either extreme. Consequently, there is often much divergence in ability between two siblings. The same facts apply to the relation of the parents in the upper and lower quartiles of ability to their children. The biologist assures us that any quarter of the human population from the lowest to the highest will produce in the long run children covering the whole range of distribution from the moron to the genius.⁷ These statements based upon the complexity of human inheritance are reinforced by many facts, such as the relation of family income to the ability of children. Granting some degree of positive correlation between family income and parents' ability in the United States, it is significant that three-fourths of the children above average in ability come from families of relatively mediocre and low incomes.

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We come to the conclusion, then, that the ability or general behavior of a particular individual is *not* predictable from a knowledge of his parents or siblings. Indeed, such knowledge often misleads teachers and others so that they expect too much or too little of a youngster with whose family background they have superficial or even intimate acquaintance. It is the teacher's duty to study each child as an individual, using all possible knowledge of the family, especially the environmental aspects, along with experimentation which reveals the abilities that really belong to the person. A careful student can discover much about the nature of a child by concentrating upon the child himself and upon the factors affecting him at a given time.

Since the guides of children are as deeply concerned with their social-emotional attitudes as with any aspect of their "nature," it is well to consider how differently two siblings may be affected by their common home environment. This difference is derived from two sources: first, difference in the siblings themselves, and second, difference in treatment by their parents. Two persons with the same surroundings are actually in two different environments, for an individual's environment consists of those factors that *affect him*. A modern term used in this connection is "permeability of personality."⁸ The permeability of an individual to certain influences is dependent upon his maturity level, his needs or motives, and his general emotional condition. As the personality of one sibling differs from that of another, so the home environment, although apparently the same, may affect him differently. In addition, the treatment of two siblings by their parents may differ greatly, even when the parents are not aware of any favoritism. In fact, fair treatment of two siblings would involve different treatment according to the individual's needs.

Investigations of delinquency reveal the drastic divergence in social effects that may come out of the same apparently "good" home. Healy and Bronner studied over one hundred pairs of brothers or sisters close together in age living in the *same* home, of whom one member of the

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pair became delinquent and the other did not. The predominating condition leading to delinquency was that one of the two children "had been blocked in his needs for satisfying relationship in the family circle." In other words, diverse treatment amounting to a differing social environment may result in one child's having a "nature" increasingly different from that of his brother or sister sitting at the same table. Teachers and others who would understand the social-emotional attitudes of children and youths must have an intimate knowledge of their lives within the home and among their companions outside as well as in school. Whether or not a learner makes progress in his formal education depends upon his social health as definitely as it depends upon his physical health. Family living is an integral aspect of the individual's experience and thereby of his "nature," sometimes increasing and sometimes decreasing from year to year a youngster's resemblance in behavior to other members of his family.

Diverse Rates of Growth

When we turn back from the complex interactions of hereditary and environmental factors in the family constellation to the beginnings of individual growth, we find normal trends and patterns that are helpful in understanding the individual however widely he may depart from them. Take, for example, the rate of physical growth. We know that in the first few weeks the human embryo grows at a tremendous rate through the rapid multiplication of cells. Between the end of the first month and the end of the second month the fetus multiplies its length about twelve times; during the third month the fetal length trebles; while during the fourth month the length is only doubled. This decreasing rate of growth suggests the form that the growth curve takes for several years after birth. The velocity of growth in height *for boys* on the average decreases at varying rates until about the age of ten and then rises again to approximately the four-year-old velocity at about the age of thirteen concurrently with ap-

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proaching adolescence.¹⁰ Notice that while the rates given above for embryonic growth are undifferentiated as regards sex, the low velocity at ten and high velocity at thirteen years is distinguished as for boys, since girls reach the corresponding stages a year or so earlier. This general principle of distinguishing norms for groups, according to sex in the one case, may be applied to other groupings, so that the expectation for an individual boy or girl may be closely related to the particular group to which he belongs, for example, according to his height-weight ratio.

Indeed, wide agreement has been reached among students of physical growth that rigid, average standards according to age for either sex are misleading in answering the question, "Is this child's growth normal?" One contribution toward resolving the difficulty consists in classifying children into several groups on the basis of body type, corresponding to such common terms as "fat," "tall and lean," "medium," and so forth. Each of these types has a characteristic height-weight age curve. As long as a child progresses normally along the "grid" or "channel" of his type, in which his height-weight age data are plotted, his development is considered healthy. When an individual's growth departs, in either direction, from his preferred path or channel, however, physical unfitness is indicated. Thus, the standard for physical development is related to the individual and may have considerable range *within* the channel of his type without being considered abnormal. The point is that scientific standards for physical growth may be adjusted to individual cases and still retain high validity as objective guides in the discovery of malnutrition or other divergence from healthful development. Such studies point the way toward rational methods of evaluating development in terms of the history of the individual as establishing into which one of several distinct groups he falls.¹¹

Too often developmental programs have been based upon a mere acceptance of present averages for height, weight, motor skill, vocabulary, emotional stability, and social relations. The "median" for a group is taken as "normal" instead of looking forward to "optimum" de-

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velopment as an ideal within the probability of practical attainment. A recent study in the nutrition of school children illustrates clearly the profound difference between the averages or medians attained under usual conditions and the possibilities of normal growth when better conditions are provided. It is common knowledge that in a rigorous winter climate, such as that of upper New York State, children usually make most of their growth in the summer, almost like the trees, which make most of their growth (girth, at least) in June. Under the usual conditions of nutrition these children gain little in weight during the "hard" months of January, February, and March. The experimental feeding of the children of four one-teacher rural schools in this area with a tasty hot lunch containing the protective foods and appropriate vitamins as well as adequate calories resulted in an average gain in weight during this winter period of four to ten pounds per child. The teachers of these schools testified further to the indirect beneficial effects upon interest in school work and social-emotional attitudes, and thereby upon learning in terms of subject matter.¹² In other words, standards for development in its many aspects need to be established experimentally under optimum conditions rather than through the mere collection of data that so commonly reflect the present mediocre and inadequate environments provided. Let "normal" and "natural" growth be reinterpreted by students of development as "optimal" growth.

Longitudinal and Cross-Sectional Studies

The understanding of age groups and individuals depends, as will be seen from the discussion thus far, upon a knowledge of the long-term trends or rates of sequential development from conception and fetal growth through infancy, childhood, and adolescence to maturity and even senescence. No teacher or parent can adequately understand an individual without some knowledge of his history to date, and the adult will be an inadequate guide unless he can

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foresee in some measure the attainments and difficulties that lie ahead. Although cross-sectional studies of the attainments of seven-year-olds or fourteen-year-olds present helpful data in this dimension, students often are misled unless this information is related to that provided through the genetic approach by long-term studies of physical growth, emotional trends, intellectual achievements, and other aspects of development. The teacher of a group of eleven-year-olds needs to know not only the central tendencies in interests and abilities of this age group under optimum as well as common conditions in our culture, but she should have also a long view of the preceding years in order to interpret wisely the data provided in the school's records by the former teachers of these youngsters. Likewise, she needs to have in view the fields of experience opening ahead for these maturing boys and girls so that her guiding suggestions will have practical validity as well as inspirational force. The combining of longitudinal and cross-sectional studies of development is essential in understanding the "nature" of learners at any particular stage.

Much stability is given to guidance through the discovery of orderly sequences in development upon which parents and teachers can rely. Although the rate of development varies greatly with differing individuals under differing conditions, the sequential patterns are dependable designs. Shirley, for example, studied the sequence of motor accomplishment which leads up to walking from visual location of objects through pivoting, creeping, standing by clinging to furniture, standing alone, and walking with help, until finally the baby walks alone.¹³ Gesell and Thompson have detailed the steps of prehension from the neonate's reflex clinging on a rod to the adept thumb and finger opposition that makes the adult human hand a very efficient instrument.¹⁴ Goodenough¹⁵, Smith¹⁶, Jersild and Ritzman¹⁷, Fisher¹⁸ and others have traced the steps of language development from "trick words" through single-word sentences to complex sentences employing the various parts of speech acceptably. Bridges¹⁹ has diagrammed the emergence of the diverse emotions from undifferentiated

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excitement, while Buhler²⁰ and others have traced sequences in the development of social relations from infancy onward. A "scale of social maturity" has been compiled by Doll covering the sequences to be expected in a large number of diverse areas, such as "self-direction" and "socialization."²¹ As studies accumulate in the phases of development already mentioned and in subject matter fields with their particular concepts, the teacher will be able to predict with increasing accuracy what the probable next steps in the various aspects of development will be for a particular pupil. It is assumed that the teacher knows where the individual is at the moment and can provide conditions which experience has shown do promote the anticipated development. Thus education may become a more orderly process when based upon stable sequences *without neglecting individual differences at any point*. In this sense the teacher may always be a step ahead of the learner. Of course, the process of discovering the sequences is never completely finished, because both learners and teachers create from time to time "short-cuts" that become sound processes of development for the individuals concerned.

Differentiation

Out of the study of sequential development has come a general principle, which properly understood gives unity and organization to the whole developmental-learning process: namely, the principle of *differentiation*. We might say, "The human learner is a differentiating animal," or "It is the nature of the learner to differentiate as he develops." In the first place, the growth of the embryos of differing species involves a common process by which cells that are very similar give rise to cells that are very different. The cells become differentiated, for example, as specialized parts of the eyes, brain, or skin.²² Again, the motor development before birth begins in mammals with unregulated, non-coordinated, nonrhythmical movements reported by Wilhelm Preyer in the 1880's for the fetuses

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of guinea pigs and in almost identical terms forty years later by Minkowski for human fetuses whether stimulated in one part of the organism or another.²³ These generalized movements of the whole body become gradually differentiated into somewhat separate movements of the arms and legs, the motion of which mothers report feeling during the latter part of the pregnancy period. After birth the neonate remains at first a generalized organism, who moves his arms and legs spontaneously as wholesale, random expressions of irritation and excitement; but before long these movements begin the gradual differentiation which continues through twelve months or more, culminating in the skills of grasping and walking.²⁴ Thus the patterns of physical growth—including that of the nervous system, the patterns of muscular activity, and the patterns of sensory experience—promote self-directed behavior, which transforms the embryo eventually into the toddler whose behavior has many human characteristics. The toddler's patterns of action involve his perception of objectives, such as a rattle, and his learning through experience perhaps to grasp it, as well as a steady process of maturation.

The principle of differentiation can be used also in the interpretation of emotional development. As Bridges²⁵ has shown, emotion begins in early infancy as undifferentiated generalized excitement. Soon delight can be distinguished from distress, which is further differentiated into anger, disgust, and fear before the age of six months, while in the second half-year delight comes to have the distinguishable aspects of elation and affection. Whether or not the reader agrees exactly with this analysis of the infant's emotions, the process seems to continue as one of gradual differentiation. In the field of language development, the process by which the child emerges from babbling infancy consists in using single words at first to express a whole, vague area of experience. These single-word sentences are gradually replaced by two- and three-word sentences and finally by longer sentences that come to contain, in the customary sequence, nouns, verbs, adjectives, adverbs, conjunc-

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tions, and other parts of speech, which are really differentiations of thought as well as of language. It is evident also that social development involving the choice of friends and the evaluation of persons, is a process of differentiating among one's associates. The whole process of development and learning may be viewed as differentiation in which one pattern succeeds another, using the preceding form of behavior as a ground or basis but transforming the old into the new by a creative act rather than by a mere adding of new structures, skills, emotions, words, or social contacts. An understanding of differentiation as an aspect of the learner's nature throws light upon the whole educative process. The establishment of general principles, such as differentiation, is essential in the scientific organization of psychology and education.

Organismic Interrelatedness

Since the development of each individual is an integrated or unitary process, within which various differentiations occur, the consideration of the degree of relationship between the various aspects of growth throws light upon the complex interactions that together constitute the development of the child as a whole. The work of Olson illustrates this approach to the "nature of the learner."²⁶ In these longitudinal studies covering the period of elementary schooling, frequent measurements have been recorded on a wide variety of aspects of development. Each of these measures has been converted into an age value, such as height, weight, carpal, dental, grip, reading, arithmetic, spelling, educational, mental, or social age. The average of all these age values becomes the "organismic age," which can be compared with the chronological age of the child. Although the rate of development varies considerably so that one child may be accelerated while another is retarded, the pattern of growth for one individual is usually homogeneous. That is, the fast grower is apt to be accelerated in all aspects of growth, while the slow grower is likely to be retarded in all aspects. When

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the organismic ages of a child, around which his various aspects of growth form a group, are plotted for successive ages, Olson gets an almost straight line indicating steady, continuous growth at the child's own rate. Although fluctuations in some of the aspects occur not infrequently, these fluctuations commonly counterbalance each other so the rate of the total growth of the whole organism remains stable. This discovery of the high probability of a steady rate of growth for each child may be of considerable value to the teacher who is responsible for guiding children and making decisions on promotion or the choice of a school program that will insure optimum development.

When a serious environmental disturbance occurs in a child's life, such as may be caused by a long illness, an accident, or the death of a parent, the effect of this perturbation is often widespread upon the various aspects of development. In some cases social-emotional maladjustment is accompanied by faulty physical growth, but instead of designating either as cause or effect the scientific student of development may well recognize their interrelatedness and the circular character of their mutual effects. The treatment then advised is a many sided approach through a variety of physical and social conditions, so that the adult guide deals almost simultaneously with the several factors. Likewise, the study of each child as an individual needs to be supplemented by a consideration of his progress as a member of a group of children. The individualistic and social aspects of development must be interrelated in the study of the child as they are actually in the child's life. Thus a general principle, represented by such terms as "integration," "interrelatedness in growth," "organismic development," and "the child as a whole," becomes increasingly essential to the understanding of the nature of any learner.²⁷

In contrast to the procedure just mentioned of interrelating the various aspects of growth and development to sum up the fundamental character of the whole child, a modern short-cut designed to reveal the individual personality through behavior is the "projective method." In

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this technique the child is given an opportunity to project his whole personality on a situation, such as finger painting, arrangement of miniature life toys, balloon breaking, clay modelling, comment upon a story, or free composition of prose or poetry, in order to reveal his "inner self" without being aware of the process. These projective methods are as essential to the teacher in discovering the nature of the learner as any of the approaches already described, because they expose individual interests and motives upon which all learning must be based. The projected behavior frequently indicates emotional difficulties and inhibitions, which block the learner until they are removed. Fortunately, some of these projective techniques can be reproduced by the cinema for analysis and interpretation, as has been done by Fisher and Stone.²⁸ Finger painting at age three, for example, reveals wide differences in behavior, which are consistent with differences shown by anecdotal records of conversation and other forms of behavior in the nursery school and home. These emotional characteristics of early childhood persist in many cases for long periods and become an important part of the child's personal history, which will aid his successive teachers in guiding him. The personality differences revealed by projective methods, although they are the joint products of biological heredity and of the physical and social environment in the family and elsewhere, may be as fundamental in their effects upon the education of the child as the combinations of genes with which his growth began.

Socialization

Although some readers may assume that the nature of the learner is covered by descriptions of physical growth, motor development, and early differentiation in emotional behavior, and by the general principles derived from these processes, the learner as we deal with him in school already has been deeply affected by language as a vehicle in socialization. His characteristics depend to a high degree upon the language that he learns, through which so much of the

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life of his home and community becomes a part of him. The nature of the human race itself rests fundamentally upon language. If we grant to the processes of biological evolution the production of the flexible, tool-grasping and tool-making human hand freed from ground treading by erect posture, of the accompanying organization and growth of the nervous system including the brain, and of the organs that may be adapted to varied speech; we must recognize also the indebtedness of the human race to the great social step through which the group-living, tool-using precursors of man took on the dignity of humanity by learning to communicate with each other in verbal symbols. This step by which social evolution immeasurably furthered biological evolution in the race must be repeated in the case of every child. This change in the child's life from speechlessness to speech is so significant that it can well be compared to being born. At physical birth the individual enters into a new environment with his new processes of breathing, feeding, and eliminating that make possible his growing independence of his mother. Likewise, when the baby escapes from infancy by learning to talk, he has entered a new world in which he may eventually become, through language, an independent thinker and at the same time a significant member of the community.²⁹ As speech marks the birth of the human race, so the miracle of communication becomes for each individual the step to actual membership in the community that is as worthy of celebration as the day of his birth. The child who can never take this step into speech—whom we name "idiot"—might better never have been born, for he will never be a learner on the human level.

The gift of speech is, however, not an unmixed blessing. Since language comes from the elders and the long past, it carries in its apparently innocent and neutral symbols many of the errors, prejudices, hates, fears, superstitions, and irrational customs of our relatively ignorant ancestors. Most of our American vocabulary belongs to the pre-scientific ages. In spite of the continual addition of new scientific terminology of discovery and invention, these new

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words form only a small part of the total and must be fitted to a basic phraseology full of misleading dichotomies, such as "mind" and "body."³⁰ By the process of socialization a great mixture of ancient customs and notions is transmitted to youth through the family and community almost forcing him to accept the feelings, habits, and ideas of his nation, caste, and class.³¹ The recent work in the field of semantics has been concerned with furthering the escapes of the learner from the misconceptions carried in words by referring these symbols more closely to the underlying facts and experiences.³² Thus the learner—or his parent or teacher—may be considered from this point of view a victim of verbal symbols, which often channel his thinking in narrow grooves or lead off into mysteries that obscure the findings of science.³³

On the positive side, language is the instrument that makes extensive and intensive thinking possible. It is not merely a means of communication, but it brings into the here and now the far away and long ago. And out of the past and present with the tool of language man plans his future. The vast possibilities of the race become, by means of language, potentialities of each individual learner. Through at least four thousand years of handwriting, five hundred years of printing, and a life-time of vocal recording, speech has been transmitted from the past to the learners of today. The opportunities thereby provided for individual and group thinking are as integral aspects of the nature of the human learner as his feelings of affection or fear, the movements of his eyes and hands, or the beating of his heart. If man is a social animal, talking makes him so! If man is a thinker, words must be credited. Wherever modern education through experience is occurring language is still an inseparable ingredient of that experience.³⁴

Misconceptions of the Learner's Nature

Before we conclude our survey of the learner, attention may be called to certain common misconceptions which have plagued educators and the public. First, according to

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a widespread misinterpretation of the facts and theories of evolution, it was alleged that human beings were tied in various ways to their animal heritage. One notion was that man's life was merely an expression of such animal instincts as hunger and sex, which led inevitably to fighting and war caused by scarcity of food or mates. Another pseudo-scientific doctrine depicted each generation as recapitulating or reliving the degraded life of its savage ancestors. Instead of interpreting biological evolution as a sound basis for social evolution, the fact that man had been a lower animal was taken to mean that he would be such forever! The opportunities for unending progress, which are suggested by the flexible use of language, by revolutionary scientific inventions, by the creative arts, and by ethical ideals, were ignored. The possibility of each generation and each individual continuing the development-learning process thus was denied by a false statement of the biological trends and a neglect of the social factors and the prospects for the future.

Another misconception, which is almost the reverse of the one just mentioned, takes the form of considering the infant or child as already an adult—but in miniature. As a matter of fact, the young child is no more like an adult in his behavior and thinking than he is in his bodily proportions. If the reader at his present age had the proportionate size of head and other parts of the body that show in his five-year-old pictures, not to go back to the extreme of infancy, he would be so strange a creature that he could gain a livelihood easiest as a circus exhibit. As the various parts of the body and the several organic systems, such as the circulatory, nervous, and reproductive, do not grow at the same rate; so the intellectual and social experiences appropriate for children at different ages are not uniform fractional parts of adult standards. Although children resemble adults in body form, physiological processes, and motor, intellectual, and social behavior, they must be studied as developing individuals and groups with their own characteristics built on their own experiences. Too often children are regarded negatively—as undeveloped

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adults instead of being treated with the positive respect due to their two-year-old or ten-year-old personalities.

A third misconception from which psychologists and educators have not entirely escaped is the reduction of the living integrated organism to a set of mechanically acting reflexes operated by separate neutral connections or bonds. The earlier one-sided trend in physical sciences toward analysis of matter into atoms, which has in later years been reversed and balanced, was imitated by physiological psychologists notably the behaviorists. In an honest endeavor to avoid the fallacies connected with the concept of the mind as made up of mysterious powers or disciplined faculties, these psychologists chose to describe behavior in terms of "original" and "conditioned" or acquired reflexes. According to this hypothesis, learning consisted in establishing through repetition a preferred brain path for each act or verbal response learned. This account of the learning process neglected the more or less continuous interaction of all parts of the nervous system with the entire body and its functioning environment. Thus it was conceived to be the learner's nature to form narrow habits one at a time without comprehending the relations between them. Following these notions, the curriculum was to consist of a series of distinct activities each leading toward one item in a list of specific objectives. It is evident that this plan neglects the organization of education as a whole unified experience for each individual. The thorough refutation of this mechanistic view by an organismic interpretation of behavior has been accomplished through a combination of studies in brain physiology, which demonstrate the integrated action of the nervous system, of studies in insight psychology, which show how the whole situation is involved in an act of learning, and of studies in pragmatic philosophy, which emphasize the continuous reorganization of experience in the light of social consequences. Thus, mere mechanistic analysis is avoided without neglecting any of the objective facts contributed by behaviorism, and at the same time an organic view of the whole learner is gained without falling back into the subjective, confusing

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circle of the old introspection, in which a mind tried to get inside itself. ³⁵

Underlying many other misconceptions is the fundamental error, which cuts the human learner into two parts with body, sensation, and emotion in one half and intellect, reason, mind, and soul in the other. As has been suggested above, psychologists and educators in their endeavor to escape from the mysteries surrounding the origin and destiny of man have bound human beings, in the name of science, to their animal heritage or made them into mechanisms, which must receive outside stimuli for activity. Both interpretations predetermine the behavior—the one by past animal origins and the other by the present environment. Other writers made the opposite error of putting intellect, reason, mind, or soul above body, emotion, and sensation, while attaching to this higher part an absolute power which presumably controlled man's behavior and destiny. In any case, the individual learner from birth to death was under a control that lay outside himself in the depths of biological heredity, in the limitations of the existing environment, or in mysteries beyond the stars. Modern education and psychology, however, have been moving steadily, especially in the twentieth century, toward reducing this bifurcation of the learner, thereby giving him the opportunity of daily demonstrating his control over his own destiny. Without neglecting one item of scientific knowledge concerning evolutionary processes, hereditary mechanisms, neural connections and currents, or reflexes and muscular coordinations, the scientific student of human development joins to these facts the discoveries and inventions of the race, including language, thinking, esthetic taste, and ethical attitudes, until the learner is seen to have a larger and larger measure of control over and responsibility for his own destiny. The aim of modern education, based upon a broad scientific foundation, is that the learner shall become a moral individual, who learns to guide himself in ways that raise the plane of human living in himself and in his community.

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The Learner and Democracy

We come to the conclusion, then, that scientific studies show the nature of the learner to be consistent with the democratic faith in the mature individual's ability to control his own destiny and to take responsibility for his own conduct, and the faith that groups of individuals can build an ever fuller life in each community. This consistency should not be interpreted as an automatic outcome of natural growth but as a possibility based upon the modifiability of human nature and the character of the democratic ideal.³⁶ The learner is really a center of biological energy, which can be turned in many diverse directions for diverse purposes just as can the electrical energy generated by a dynamo. The quantity and quality of the energy of any individual depend upon an inseparable union of hereditary and environmental factors and the consequent development from day to day. Neither heredity nor any other force points human nature toward democracy nor toward dictatorship; the direction will be determined by social forces surrounding the individual and working through him—social forces of which he is a part. The scientific procedure incumbent upon the adult guide is to provide the conditions which promote development that leads to further development of the individual and his community, thereby reconstructing the existing social forces. The democratic ideal of respecting the worth of each and all individuals can become through guided social experience an integral aspect of the learner's life. Maturity in a democratic society means that the learner takes over in increasing measure the guidance of his own conduct and that he is able to bear his full share of responsibility for the common life. This mature conduct toward which the learner may progress does not consist of simple choices but involves eventually the establishment of complex forms of social organization designed to widen the area of common interests voluntarily shared by the diverse individuals making up the community.³⁷

The ultimate nature of the learner and the character of

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his behavior are neither predictable in detail nor specifically limited because the individual is not only a center of energy but also a center of invention, of creation in his own right. As the individual grows up, the culture of his family and community flows through him to generate new forces—a process which democracy fosters. Since the learner grows, develops, changes, invents, and creates, the nature of the learner is not only what he is today but includes also what he *may become* tomorrow and in the long future.³⁸ The nature of learners in each generation depends upon the way in which the scientific facts concerning development are joined with an adequate social outlook or philosophy of life in the learners' guides and in the learners themselves. The American word that sums up this ever developing social process is *democracy*.

NOTES ON THE CHAPTER

1. See Max Black, "Education as Art and Discipline," *Ethics*, LIV (July, 1944), 290-294.

2. See Staff of the Division on Child Development and Teacher Personnel, *Helping Teachers to Understand Children* (Washington: American Council on Education, 1945).

3. H. S. Jennings, *The Biological Basis of Human Nature* (New York: W. W. Norton and Company, 1930), p. 137; see also chap.'s III-IV.

4. See William F. Bruce and Frank S. Freeman, *Development and Learning* (Boston: Houghton Mifflin Company, 1942), p. 511.

5. See Horatio H. Newman, Frank N. Freeman, and Karl J. Holzinger, *Twins: A Study of Heredity and Environment* (Chicago: University of Chicago Press, 1937).

6. See Frank N. Freeman, Karl J. Holzinger, and B. C. Mitchell, "The Influence of Environment on Intelligence, School Achievement and Conduct of Foster Children," *Twenty-seventh Yearbook of the National Society for the Study of Education* (Bloomington: Public School Publishing Company, 1928), I, chap. IX.

7. See H. S. Jennings, *op. cit.*, p. 220 ff.

8. See Daniel A. Prescott, *Emotion and the Educative Process* (Washington: American Council on Education, 1938), p. 125.

9. William Healy and Augusta F. Bronner, *New Light on Delinquency and Its Treatment* (New Haven: Yale University Press, 1936), p. 201.

10. See curve supplied by Dr. Herbert R. Stolz, Research Associate, Institute of Child Welfare, University of California, in William F. Bruce and Frank S. Freeman, *op. cit.*, p. 31.

11. See Norman C. Wetzel, "Assessing the Physical Condition of Children," *Journal of Pediatrics*, XXII (January, February, March, 1943), pp. 82-110, 208-225, 329-361

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12. See Roswell Johnson, Mary Imogene Bassett Hospital, Cooperstown, New York, address before Otsego County Tuberculosis and Health Assn., October 20, 1944.
13. See Mary M. Shirley, *The First Two Years* (Minneapolis: University of Minnesota Press, 1931), chap. I.
14. See Arnold Gesell and Helen Thompson, *Infant Behavior: Its Genesis and Growth* (New York: McGraw-Hill Book Company, 1934), pp. 172-184; also films produced under the direction of the Yale Clinic of Child Development, entitled "Life Begins," etc.
15. See Florence L. Goodenough, *Developmental Psychology* (New York: D. Appleton and Company, 1934), pp. 160-162; 248-251.
16. See Madorah E. Smith, *An Investigation of the Development of the Sentence and Extent of the Vocabulary of Young Children* (Iowa City: University of Iowa Studies in Child Welfare, 1926), III, no. 5.
17. See Arthur T. Jersild and Ruth Ritzman, "Aspects of Language Development: The Growth of Loquacity and Vocabulary," *Child Development*, IX (1938), 248-259.
18. See Mary S. Fisher, "Language Patterns of Pre-school Children," *Journal of Experimental Education*, I (1932), 70-74.
19. See Katharine M. B. Bridges, "Emotional Development in Early Infancy," *Child Development*, III (1932), 324-341.
20. See Charlotte Buhler, "Spontaneous Reactions of Children in the First Two Years," and "Personality Types Based on Experiments with Children," *Proceedings and Papers, Ninth International Congress of Psychology* (Princeton: The Psychological Review Company, 1929).
21. See Edgar A. Doll, *The Vineland Social Maturity Scale* (Vineland, New Jersey: The Training School, 1936).
22. See above, p. 350.
23. See Carl Murchison, ed., *Handbook of Child Psychology* (second edition revised; Worcester, Mass.: Clark University Press, 1933), pp. 236 ff.
24. See above, p. 353.
25. See Katharine M. B. Bridges, *op. cit.*
26. See Willard C. Olson and Byron O. Hughes, "Growth of the Child as a Whole," in *Child Behavior and Development*, eds., Roger G. Barker, Jacob S. Kounin, and Herbert F. Wright (New York: McGraw-Hill Book Company, 1943), pp. 199-208.
27. See George D. Stoddard, *The Meaning of Intelligence* (New York: The Macmillan Company, 1943), chap. VIII.
28. See Mary S. Fisher and Lawrence Joseph Stone, *Explanatory Notes on the Series of Films: I, Finger Painting; II, Balloons; III, Frustration Play Techniques; IV, This is Robert* (New York: New York University Film Library, 1944); also from the same source the films listed may be rented; a guide to "Finger Painting" is available; guides to the other films are in preparation.
29. See William F. Bruce, *Principles of Democratic Education* (New York: Prentice-Hall, 1939), chap. VIII.
30. See Boyd Henry Bode, *How We Learn* (Boston: D. C. Heath and Company, 1940), chap. 2; also Ellis Freeman, *Social Psychology* (New York: Henry Holt and Company, 1936), chap. VIII.
31. See Allison Davis and John Dollard, *Children of Bondage* (Washington: American Council on Education, 1940); also W. Lloyd Warner and Paul S. Lunt, *Social Life in a Modern Community* (New Haven: Yale University Press, 1941).
32. See S. I. Hayakawa, *Language in Action* (New York: Harcourt, Brace

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and Company, 1941); also Stuart Chase, *The Tyranny of Words* (New York: Harcourt, Brace and Company, 1938).

33. See A. J. Carlson, "Science and the Supernatural," *Scientific Monthly*, LIX (August, 1944), 85-95.

34. See John Dewey, *How We Think* (Boston: D. C. Heath and Company, 1933), Chapter 16; also by the same author, *Experience and Nature* (Chicago: Open Court Publishing Company, 1925), Chapter 5.

35. See William F. Bruce, *Two Trends in Curriculum Construction* (dissertation, Ohio State University, 1926). Abstract available from author.

36. See John Dewey, *Human Nature and Conduct* (New York: Henry Holt and Company, 1922), Part IV.

37. See Boyd H. Bode, *Democracy as a Way of Life* (New York: The Macmillan Company, 1937).

38. See M. C. Otto, *The Human Enterprise* (New York: F. S. Crofts and Company 1941), p. 208; also by the same author, "Scientific Humanism," *The Antioch Review* (winter, 1943), 530-545.

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PART IV

EDUCATION AND SOCIETY

CHAPTER XVIII

PRIMARY SOCIAL FUNCTIONS OF THE
SCHOOL

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When a small boy proffers a dime for candy few clerks hesitate to complete the transaction. But if he seeks to sell the family residence or buy an automobile his relation to his family promptly becomes articulate. At one moment he seems to be an autonomous individual, at another an acutely dependent member of a social group.

The school is looked upon by some as a sort of self-regulating institution, by others not as a unit at all but as a function of society. As the school has become the object of extensive and intricate legislation the second philosophy has become well-established. Horace Mann recognized the problem when he advocated free state-controlled training of teachers. If the school is an autonomous institution, if school officials are experts employed by society, then society has but to pick the best it can afford and hire them to operate the schools. If the school is really society itself functioning in the preparation of its immature members for participation in the activities of adult society, then every factor that affects the quality of the output is a

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legitimate concern of all. The training of teachers is, thus, as Horace Mann concluded, a proper function of corporate society.

According to this theory the school is not an agent of society, free to formulate its own goals, to determine its own curriculum, and to choose its own methods, then to call on society merely to pay the bills, but a function of society itself. *The activity of society in preparing its growing members for full participation in social life is called the school.* School officials and teachers are not independent experts setting up goals, adopting curricula, and selecting methods as their own special prerogative, and deciding questions of organization and administration by some divine right. They cannot say to their fellow citizens, "Hands off! This is our province." Society is responsible for the well-being of its future members today and tomorrow.

In this philosophy there are great perils; but they are the perils inherent in democratic social control. There is the peril of conservatism. What one becomes accustomed to is sacred; change is dangerous; the *status quo* must be preserved at any cost. Many a district has voted against inclusion in a larger unit in the face of clear evidence that consolidation would make possible reduction of taxes, safer buildings, better trained teachers, better grouping of children, merely because the voters were reluctant to change from the conditions they had known in their own school days.

Along with loyalty to the *status quo*, persecution of liberals is often practiced. A superintendent who advocates organization of a junior high school is dismissed; so also a principal who introduces a general social studies program, a teacher who aids in organizing a consumers' cooperative, a teacher who guides his classes in discussing both sides of the labor problem, a teacher who explains the theory of evolution. The list might be extended.

A more subtle danger lies in the confusion of means with ends. The people of a given community wish to protect the religious faith of their children. The teaching of evolution is opposed. The fallacy in this opposition lies in

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the failure to see that prejudice against evolution leads thousands of youths to abandon their religious faith entirely, when eventually they are compelled to believe the evidences in favor of evolution. The real objective is to preserve the religious faith of youth. The falsely assumed means — suppressing the teaching of evolution — is confused with the goal. As a result, the goal itself is sacrificed. There is a similar confusion of means and goal in the argument that taxpayers have a right to determine what shall be taught by teachers whom they support. These taxpayers (except for the few utterly lacking in social concern) want their children to be good citizens. They assume that the factors under which they themselves found the blessings of freedom are the factors necessary for the freedom of the next generation. If it should prove true the *status quo* no longer tends to favor good citizenship but rather the reverse, then even the taxpayers would, in the long run, be better satisfied with a program favoring social change, though at the moment they are greatly alarmed by such a program. If they prefer a traditional curriculum (means) because they have been conditioned to it, and desire to have their children become good citizens (goal), it is clear that educators cannot satisfy both demands.

The Problem of Educational Functions

The functions of the school cannot be separated from its goal and objectives. So long as the members of a community merely wish that some means might be found by which to transform their boisterous, impetuous, disobedient, blundering children into refined, dispassionate, angelic geniuses, they are indulging only in daydreams. They have wishes and desires, but not goals. Not until they set in motion some plan by which to attain these ends can they be said to have objectives. It is the functioning of the school that translates dreams into goals. The school may fall far short of realizing the objectives set up. The means may be inadequate, the methods inept; but the functions of the school are the objectives sought. Functions

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are in the same category as objectives, not the same category as methods. They are the activities of the school conceived in terms of the outcomes which it is striving to obtain.

What these functions ought to be is a matter of public desire, of the wish of members of society, of the values which society appreciates, of subjective appraisal of desirable outcomes. Science cannot determine what the functions of the school should be. Observation, logic, reason, judgment—the scientific method—can discover objective facts to determine the most efficient means of attaining a given end; it cannot prove that one end is better than another. That is a subjective matter. The old Latin proverb¹ is astonishingly precise: "In matters of preference there is nothing to argue about." Extended laboratory studies demonstrate that scientific method cannot determine what is desirable and what is undesirable. It can only determine objective reality and the relation between cause and effect. Science "has no answer to the question as to whether conditions ought to be changed or perpetuated."² What constitutes the proper social functions of the school is a matter of public taste, of social concern, of subjective evaluation. Educational purposes, according to the Educational Policies Commission, constitute "a form of social policy, a program of social action, based on some accepted scale of values."³ This is one of the significant contributions of the Commission. It has assembled the judgments, attitudes, and interpretations of education from thousands of educators the country over, and organized them around various problems. Not the least of these findings is the clear distinction between the subjective and the objective aspects of education, and the corresponding differentiation of the functions of philosophy and science. Education can never, in the nature of the case, be a pure science. Its means may be scientifically studied and selected with reference to a previously approved goal. Its goals are evaluations; they must ever remain in the area of philosophy. What shall be attempted by the schools depends in the last analysis on what the public which authorizes the schools really wants.

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Because those wants are so numerous and varied, only those on which agreement is most widespread can become established functions of the school. Incidental functions will vary with locality and shift with time. Basic functions will be limited to those which serve the most general and abiding ideals. "Only the broadest lines of policy can have more than temporary and local applications, but these controlling principles are of prepotent importance. Everything, in fact, depends upon them."⁴

Almost like discerning and interpreting Nebuchadnezzar's forgotten dream is the attempt to formulate a statement of the functions of America's schools. For those functions are, as just indicated, what the members of society wish them to be. The statement of any individual is simply an appraisal of the wishes of the public combined with an appraisal of the degree to which the schools are consciously attempting to meet the desires of the public. The difficulty lies not alone in correctly perceiving the unrecorded ambitions of millions of parents for their children. A second obstacle arises in articulating those wishes, and this in turn is aggravated by confusion between immediate and distant goals. It is this second obstacle that has retarded the development of a working philosophy by the nation's educators. The difficulty of articulating society's desires regarding the education of its children is clearly indicated in the published criticism of the schools. The most casual scanning of letters from the people in the daily press, editorials in both village and metropolitan papers, magazine articles and books will reveal a wide variety of statements and implications as to the purposes of the school. Critics are aware that the schools fail to conform to their standards; but their statements of the functions they demand of the school form a highly variegated pattern.

It will be safest, therefore, to approach the question of functions from the vantage point of general criteria rather than from the practical viewpoint of popular preference. By what test can good education be recognized? What standard must be met in order to assure this outcome? Fundamentally, these questions are satisfied only by the

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comprehensive question, What outcomes of education would be best for the human race? This question must, in the final analysis, be asked in a more fundamental sense, even than that of the wishes of the race. It could not be completely answered by a comprehensive popular poll. For a final criterion of good education the question must be this: *With what outcomes of education would the members of the human race be best satisfied after they had been experienced?*

A basic answer to this question is rooted in the very nature of man's nervous system. No experience of unmitigated annoyance can be considered good, and no experience of unadulterated satisfaction can be considered bad. Feelings of value are ultimate criteria of the good life. Beyond the subjective feeling of worth there is no test of success. That which enriches life is good, that which impoverishes life is bad. Indeed, language has developed no words to denote evaluations of experience except those which designate satisfaction. What is desirable if it does not satisfy desire? What is valuable if it is not an appreciation of value?

But the criterion of satisfaction is not so simple as it may sound. Not all pleasant experiences are equally pleasant. Many an athlete will forego mince pie, pleasant as it is to him, in the hope of winning greater glory in the contest the next day. As saccharine is sweeter than sugar, so some satisfactions are higher in quality than others.

Pleasures also vary in permanence. A sunset, an opera, a play, citation for outstanding citizenship, may yield enjoyment that lingers like perfume, while an excellent meal may be soon forgotten. "That recreation is best which is longest remembered with a thrill." The statement may be universalized. That experience, of whatever kind, is best which leaves the most abiding satisfaction. The criterion by which the functions of education must be tested, then, is the highest quality and greatest permanence of satisfaction. That this is no simple criterion of hedonism should be obvious to anyone familiar with the criticism of that doctrine.

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Reference has been made to the report of the Educational Policies Commission entitled *Purposes of Education in American Democracy*. Highly significant was the Commission's recognition that science cannot, in the nature of the case, determine what the objectives of education should be. But this analysis was only preliminary to the major report on the objectives themselves. A contribution of the highest importance was made by the Commission in assembling the positions of thousands of educators in regard to the purposes of education. A valuable service was also rendered in a thoughtful organization of the approved objectives that takes it completely out of the class of popular polls. The approach and resulting classification of objectives are different from any of the published statements that have previously appeared. Four major outcomes of education are recognized: (1) self-realization, (2) human relationships, (3) economic efficiency, (4) civic responsibility.

In these four areas forty-three specific objectives are found. The second, third and fourth groups of objectives are clearly social and the process of producing them is likewise social. While the first area, self-realization, may appear to some to be individual it cannot, either as process or product, be separated from its social implication. There are aspects of one's personality which one cannot fully share with others: the richer the personality the more such aspects. The poet cannot arouse in others all the emotion which he feels. The painter experiences more than he can put onto his canvas. Those who highly appreciate beauty of sunset, beauty in flowers and mountains and oceans, cannot fully share with others their feelings and enjoyment. Yet the richer those feelings the richer will be the reaction of each individual to the higher appreciations of his fellows. The wider one's range of interests the wider one's circle of understanding friends, and the more one can contribute to the enrichment of those friends. Thus in a very true sense self-realization—the enrichment of personality—is a highly social objective.

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Nature of Social Functions

The nature of the social functions which the school is under obligation to perform must be determined in the light of the goals accepted. Enriched personalities who find life deeply and permanently satisfying and who contribute to the happiness and well-being of their fellows, are highly complicated organisms. Their mental equipment which makes them social came into being through the acquiring of a great many motor skills, a long catalogue of habits and interests, and an enormous mass of information. The information was organized into judgments and concepts related to dominant centers of interest. Specific skills were organized into larger skills, such as walking, playing tennis, writing, computing bills, writing checks. Interests were integrated into a hierarchy of value systems. This analysis of the elements that go into the happy, democratic personality implies the essential steps in securing the desired result, and thus dictates the social functions of the school.

Every item in the curriculum and every aspect of method should be planned to produce those habits which make for the better adjustment of an individual to his fellows, and those changes of interest and attitude which increase his concern for the welfare of others. In short, the primary social functions of the school are the cultivation of socially approved habits and socially helpful attitudes. The accompanying chart and the explanations that follow attempt to interpret this definition in specific terms.

Means	Methods	Objectives
Conditioning interests (Applying law of effect)	Encouraging group undertaking of serious enterprises, with follow-up of approval for socially desirable conduct, in democratic class discussions, in student projects, as school paper, debate, drama, club, athletics; in a responsible student government.	Belongingness to group Cooperation Dependability Justice Respect for personality Magnanimity Integrity
Training in skills		
Imparting information		
Guiding reflective thinking		

A sense of belongingness to the social group. The child will come to feel that he is needed, that he is a vital part

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of the group life, that others respect him and consider him important. He will come to feel that his interests are identical with the interests of the group. And "the group" will come to mean several groups of which he is a functional part. In time, a greatly expanded group will come to include the smaller groups and be seen as more important than its constituents. The community, the state, the nation, the human race, will gradually assume the role of this comprehensive group to which primary loyalty is due.

With the sense of belonging to a group, friendships will develop toward individuals who respond with fellowship. These friendships, in turn, intensify the feeling of belonging to the social group.

Cooperation. The child will come to work and play in his group and to feel a sense of satisfaction in the relationship. Individualism, competition, rivalry will be less appealing than teamwork. Spontaneous group play is a social achievement. It is at the same time a school for social cooperation. Creative work can yield satisfaction to any individual, but participation in a group enterprise can yield more, and can deepen the enjoyment of the work itself. One is well up the trail toward the goal of social personality when one feels a genuine zest for cooperation.

Dependability. The child will feel a sense of pride in knowing that he can be depended on. Every boy and girl can potentially develop the trait of reliability which is so highly emphasized in the Scout. This concern that others shall consider one dependable is brought about by cultivating forms of dependability, such as punctuality, regularity, truthfulness, and honesty; so that these component elements need hardly be catalogued as objectives, for they will already have been attained when dependability has developed.

Justice. The child early shows sensitiveness to injustice done to himself; but devotion to evenhanded justice to others is a mature trait, not certain to be found even in one who has a high sense of social responsibility. It is indispensable to a perfectly democratic society, but it is a luxury in our very imperfect democracy. Justice is related to good

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sportsmanship. It reflects the spirit of the Golden Rule in its equal concern for all parties. It is also related to tolerance. It recognizes the right of another to reach his own beliefs and appreciate his own system of values. Intolerance is a form of injustice. The democratic principle of appealing to reason rather than to force also stems directly from devotion to justice. Apart from such devotion reason could accomplish nothing. The appeal to force is made only by those who have no concern for justice; to such there is no other appeal.

Altruism. The citizen who learns to love justice is on the way to a still higher attitude toward his fellows. He will find an even finer satisfaction in doing more than is required; he will be generous. "If one require you to go with him a mile, go with him two." It is thus that the person with any sensitiveness to honor can be most surely won as an admirer and friend. The magnanimity that puts itself out to do more than is asked or required lifts society above the level of cold bargaining. Altruistic deeds crown human relationships with a quality that beautifies the whole spirit of social fellowship.

From the standpoint of *motive*, no higher attainment can be reached by the individual than altruism, of which magnanimity and generosity are expressions. Concern for the well-being of others is the highest ethical achievement of which the human race knows. In its supreme form of self-sacrifice and devotion, it is the accepted ideal of biographer, novelist and poet. When a man lays down his life for his friend, or for the group toward which he feels high loyalty, he has attained the highest reaches that the human will can achieve. Less dramatic but no less true is it that when a man lives in complete self-abnegation and devotion to the interests of society, he has also attained this highest ideal. Religion, in its noblest ethical expressions, offers such a standard.

The picket frozen on duty,
The mother starved for her brood,
Socrates drinking the hemlock,
And Jesus on the rood,

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And thousands who, humble and nameless,
The straight hard pathway trod:
Some call it consecration
And others call it God.

Respect for personality. Out of a long series of attitudes of increasing good toward others, typified by the five steps listed above, one may finally develop a sense of the sacredness of personality. This is the supreme evidence of social growth. While no higher than altruism as a motive it buttresses the altruistic motive securely; it provides an intrinsic value in the person which serves as an enduring spring of altruism. To feel the worth of another *person as such*, not in terms of a creature who can repay favor with favor, not in terms of likeness of creed or color, but in terms of that triumph of the universe, *personality*, is to have become the highest social product that is conceivable.

Levels of Personality Attainment	Effectiveness as a Social Person
6. <i>Reverence for Personality</i>	Integrity
5. <i>Altruism</i>	in
4. <i>Justice</i>	cumulative
3. <i>Dependability</i>	de-
2. <i>Cooperation</i>	grees
1. <i>Belongingness in the group</i>	
0. <i>Egoism</i>	Impulsiveness

Integrity. While altruism is the highest attainable ideal in terms of motivation, and reverence for personality in terms of appreciation, there is another quality of personality indispensable to efficient citizenship. That quality is integrity. Integrity means the unified organization of all one's interests, values, and motives. The integrated person acts consistently. He does not vacillate from one standard to another. He is not loyal to one ideal today and to a competing ideal tomorrow. This protects him from emotion which results from inner conflicts and it protects society from the uncertainty which characterizes impulsive natures. Not only does he feel devotion to a high ideal, but

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all his interests and values and motives are subordinated to that ideal. His life is a hierarchy of values in which each interest has its place, but all are subordinated to one central devotion. He behaves as a unit.

It is obvious that all these objectives—the sense of belonging to the social group, cooperation with the group, dependability, devotion to justice, altruism, respect for personality—belong in the class of affective traits rather than intellectual abilities. They must be acquired, therefore, according to the laws which control affective learning.⁵ These laws are now emerging and must be understood by the educator who would contribute his part to the social objectives of the school. While much of the vital data regarding these laws which has been mined out by the psychological research specialist is still in the ore heap at the mouth of the mine, some of it has been smelted and refined and is available for the conscientious educator. Without an understanding of these laws the school can only imitate the practices of the past which have seemed most successful. The crucial step in making effective any social philosophy of education is the mastery of these laws under which affective learning takes place.

The cultivation of social traits depends not upon the laws which control intellectual learnings, such as repetition to secure skills, association of ideas to establish memories, or logical organization to formulate judgments, but upon the law of effect, the association of satisfactions with the traits desired. In the face of all criticisms of that law, cumulative research has piled up evidences which more and more clearly demonstrate its soundness and applicability to all phases of attitude training. For the lack of a better verb to describe the process of education under the law of effect, the very bad and dangerous word “conditioning” is coming to be used.⁶ The word is dangerous because in the minds of so many it has been associated with *reflexes*. But no such limitation actually restricts the process; it operates also in fixing beliefs and cultivating attitudes. The conditioning of *reflexes* has its proper place in the building of skills. It has no proper place in the in-

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doctrination of beliefs — the building up of stereotypes. But in the field of attitudes conditioning in the broad significance of the law of effect hold undisputed monarchy. Conditioning is the only process by which attitudes can be cultivated. This discovery is nothing short of revolutionary. It means that social attitudes can be controlled as definitely as the mastery of skill in arithmetic and spelling and penmanship, as surely as the powers of reflective thinking in history and science. It means that the objectives listed above and all their corollaries and multitudinous particular elements can be consciously and deliberately cultivated by school and home. It means that the mystery which once surrounded the so-called "concomitant" learning of these spiritual qualities in connection with intellectual learnings, is now being removed, and that the traits of good citizenship can be cultivated directly and consciously. The only limitations on the building of an ideal social order in the future will be the retarding effect of a selfish environment and the neglect by teachers to master the laws by which they can overcome such environment. While both are serious, the correction of the second will finally remove the first. The laws of motivation constitute the keys to success in carrying out the social functions of the school.

While the major social functions of the school are in the area of attitude training, affective learning is not isolated from intellectual learning. Past neglect of social interests and drives justifies special emphasis on them; yet it must not, even by implication, exclude the intellectual functions which have been traditionally associated with the schools. Unfortunately in hundreds of instances, these intellectual activities are directed by teachers who have no awareness of any social implications of the outcome. Nevertheless, such attainments have a high social significance.

Intellectual processes are of three types: (1) *skill* (2) *knowledge* and (3) *judgment*.

Skills, as taught in the schools, are chiefly related to communication. The traditional "three R's" are essentially such tool skills. Skills in games, also, and in the use of mechanical tools are being taught to an increasing number

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of children. Skill in games is an indispensable key to the group life of children. The social significance of vocational skills has long been recognized by some and is increasingly recognized by the many. Mastery of the skills of vocation does more than increase the earning power of an individual. It gives him a sense of self-confidence and security. It gives him a sense of belonging to the group of which he has become an economic member. It favors the development of a sense of responsibility to his fellows. Skills, then, make a very definite contribution to the interaction of the individual with the members of society. Their cultivation constitutes a very real social function.

The attainment of knowledge is likewise social both as process and product. Most of the knowledge which one needs is that which will serve him directly or indirectly in his relationships to other people. Only the well informed person has the complete respect and confidence of his associates and thus a satisfying sense of prestige.

Judgments represent the highest achievements of the intellect. The social implications of sound thinking can hardly be estimated. The conscious part of social living is essentially intellectual. While motives and interests are the springs of human action they are essentially noiseless springs. They provide propulsion: but we do not have to think about them. Even our skills and habits, though intellectual, have been reduced to the lowest terms and occasion only a minimum of conscious thinking. All other relationships involve some revising or repatterning of our previous experience. This, at one level or another, is reflective thinking. From the village store to the town hall forum, discussion occupies a large place in community life. The housewife plans her meals, the farmer decides in terms of weather and soil conditions what and when he will plant. The merchant studies the demands of his public. All through life sound thinking occupies a continuous and important place.

All that the school does, therefore, in training the individual in skills and imparting useful knowledge and cultivating habits of sound and logical thinking is in the last analysis social in its nature and implications. What the

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school has long been doing, in so far as it actually relates to the needs of life, has an important bearing on social education.

Having stressed the social significance of intellectual learning, it may now be repeated that social training is basically a cultivation of interests and attitudes. This principle deserves double emphasis because it is also the more neglected aspect of education.

Realizing the Social Functions

What are frequently listed as the social functions of the school are really the means by which these functions are made operative. This holds true of both the older academic functions and those social experiences for which the school has more recently come to accept responsibility. Many educators list as the basic social functions of the school: (1) mastery of the tools of communication; (2) acquisition of a minimum of knowledge essential to intelligent social behavior; (3) health habits and health knowledge; (4) habits of morality; and (5) the ability to get along with others. More recent trends have placed increased reliance on supervised play, group association in classes, extra-curricular activities, pupil government and, sometimes, the program of discipline. An analysis of these last named activities may throw light on possible methods of giving greater social meaning to the former.

Potentially there is high value in such social experiences, but their effectiveness depends on the clarity with which they are recognized as devices and means rather than as ends in themselves. Play will become a means to socialization to the extent that spontaneity is combined with a careful control of the follow-up, so that socially wholesome behavior will be made satisfying and socially unwholesome behavior annoying. The principle of consistent consequences must be applied if play is to be made to contribute to the child's social maturity. The application of this, as most playground workers have long since discovered, is that play groups should be neither neglected nor sup-

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pressed. Unsupervised playgrounds are too often training schools in anti-social conduct. Supervision is essential; and it is effective to the degree that the laws of conditioning are understood.

The assumption that group association in school classes is automatically a socializing force is largely rationalization. When communication in study hall and class room is strictly prohibited, there remains very little that can truly be called a social situation, even though a number of boys and girls may be sitting in the same room. If the teacher is disliked and school work is unpleasant, the socializing effect is neutralized.

There still remain a good many situations, however, in which socialization takes place. In the spontaneous mingling of children on their way to and from school, on the playgrounds, and in various clubs and other organizations, there is genuine social fellowship. Where supervision is wholesome, this will favor the child development through at least the first two stages of his social maturation. He is likely to come to feel that he belongs to the group, and he may develop a considerable degree of cooperation and group participation in both work and play.

For this reason, the expansion of extra-curricular activities has gone on rapidly during the period in which the school has attained self-consciousness as a social institution. At first tolerated as a sort of aid to school morale, extra-curricular activities have come to be seen as definite educational factors. But it is a mistake to *assume* that they constitute the social functions of the school or any considerable part of them. Those who say, for example, that debate cultivates logic, and athletics cultivates sportsmanship, are entirely missing the basic nature of the education of attitudes. There are those who say with equal error that debate cultivates the trait of sophistry, and that athletics cultivates bad sportsmanship. The truth does not lie somewhere between these two: the truth is in a different area. Debate is an activity *in connection with which* intelligent conditioning can build up habits of logic and weaken tendencies toward sophistry. Debate in itself does neither.

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Athletics is an area of activities *in connection with which* intelligent conditioning can build up ideals of good sportsmanship. Athletics, as such, builds neither good sportsmanship nor bad.

Pupil government, like the playground, is ineffective when unguided as also when too rigidly controlled. Thus far, the tendency in the schools is toward overcontrol. But ideal student government does not lie somewhere between these two extremes. Its success is dependent not on a certain amount of control but on a certain type of guidance. The law of effect operates here as everywhere. Good citizenship is cultivated by consistent consequences of the practice of citizenship. When the outcomes are good, they must be consistently rewarded if they are to be made permanent; when they are bad, they must be consistently made annoying if they are to be eliminated. Wholesome attitudes and sound judgments exercised by students in their activity of self-government will be encouraged only when followed by approvals and larger privileges and higher responsibilities. When unwholesome attitudes are expressed and bad judgment is used, pupil-governing bodies will profit by their errors only when they are permitted to feel the effects of their mistakes. If the consequences are not sufficiently sobering, they should be hastened, intensified, and dramatized. But the individual acts of the governing body may not safely be vetoed. The wise exercise of its responsibility can be acquired only by having responsibility to exercise. Intelligent guidance is the answer, and under it pupil government is one of the finest opportunities for social development in the life of the school.

Discipline, as practiced by adult society and often imitated in the schools, is too frequently an illustration of anti-social education. A prisoner, convicted of murder and sentenced to be hanged, was asked whether he had anything to say before the sentence was carried out. He is reported to have replied, "Well, this will certainly be a lesson to me." In such satirical statements is the futility of our penal system exposed. Only when discipline is used as a process of conditioning toward social cooperation does it

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have constructive value. It can then be a social process of superior worth. When so used discipline is free from all retributive elements. It tolerates no penalty for past misdeeds. The entire emphasis is upon the future. Conditioning is directed wholly to changing the will of the individual and rendering him cooperative and altruistic toward his fellow beings. If this process succeeds, the discipline has been perfect. The theory of so much punishment for so much badness is wholly unsound. It has proved futile and ineffective through the long history of man's cruel punitive system. Constructive discipline has proved effective wherever it has been tried, in juvenile reform schools as well as in home and public schools. The good citizen is not one who cooperates with his fellows because he remembers the penalty for failure to cooperate. He is the one who feels himself a part of the group and spontaneously enjoys cooperating with his fellows. Such positive conditioning is entirely feasible. Only when discipline is so administered does it become a socializing function of the school.

It thus becomes apparent that the social functions of the school cannot be thought of in terms of a stated list of activities. The school's social functions lie in all kinds of activities in which socially good behavior is possible and is made satisfying. The term may be used more effectively in the singular: *The social function of the school is to provide set-ups of all types, in all possible situations in which social behavior is a potential choice of the pupil, then to provide follow-ups in which appropriate satisfactions are attached to every socially good act of the child.* Some of these situations and follow-ups will be directed specifically toward the cultivation of a sense of belonging in the social group; others will be directed toward developing a spirit of cooperation; others toward cultivating dependability, others toward justice, others toward altruism, and others toward respect for personality. But the great majority will probably not be directed toward any one specific objective, but toward a combination of several.

Excellent illustration of the ways in which school situ-

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ations are keyed toward social development have been assembled and organized by the Educational Policies Commission and published in their book, *Learning the Ways of Democracy*. Another excellent collection of such projects is found in the Stanford University report, *Foreign Languages and Culture in American Education*. The serious drama program sponsored by the *High School Thespian* similarly illustrates this type of experience tending toward better social adjustment. Activities are merely opportunities. The good teacher will be constantly alert to find and set up opportunities for social experience; but the social functions of the school lie in the opportunities for social expression and social experience, and in the follow-up which assures consistent satisfactions for wholesome social behavior. Conscious concern for outcomes is still the best guide to methods.

In the light of these principles the traditionally approved functions of the school might be examined with profit. These functions are generally summed up under reading, writing, and arithmetic; necessary and useful information; health habits and the laws of health; and morals. A very simple analysis will reveal the social implications of all of them. They all may, in a mistaken view, be regarded as subjects and ends in themselves; but in view of what has here been said, they may be wisely used as means to social ends. It is no infringement upon the intrinsic value of these subjects to insist that, after all, they may be used as experiences of social significance and application. How true this is of morals which, if merely regarded as rules to be learned, gets nowhere. It would be a source of great social reward if every teacher turned seriously to such analysis of her classroom efforts.

NOTES ON THE CHAPTER

1. *De gustibus non est disputandum*.
2. Educational Policies Commission, *Purposes of Education in American Democracy*, (Washington: National Education Association, 1938), p. 6.
3. *Ibid.*, p. 2.
4. *Ibid.*, p. 2.

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5. See chap. IX by J. V. Breitwieser, in this volume; also H. S. Tuttle, "Creating Motives," *Journal of General Psychology*, XXIII (July, 1940), 17-29.
6. See H. S. Tuttle, "That Vague Word, Conditioning," *Journal of Educational Psychology*, XXXII (September, 1941), pp. 431-437.
7. See E. L. Thorndike, *The Psychology of Wants, Interests and Attitudes*, (New York: D. Appleton-Century Company 1935). A technical summary of the most extensive experiments yet conducted in this field.

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CHAPTER XIX

DEMOCRACY AND EDUCATION

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Many educators have lately spoken for democracy with a strong voice, and many advocates of democracy, at the same time, have accused the educators of a tie-up with undemocratic interests. Concurrently, some prominent educators have recently advanced theories that have a strong aristocratic bias, while various lay spokesmen who regard themselves as democrats have attacked many features of modern education which are truly democratic.

There are many reasons for this state of affairs—some political or economic, some historical, some philosophical, and some, no doubt, due to plain and simple confusion. Max Lerner believes that he puts his finger on the cause when he says:

In a capitalist democracy the position of the school system is something of a puzzle. It is the arm of the state and the faithful servant of the economic interests that the state gives political expression to; yet it is also one of the main reliances of the underlying population which by accessions of knowledge seeks to prepare itself for power. The school system is the channel through which all the impalpable but powerful social conventions that support the *status quo* can be directed to the point of effectiveness—the minds of young people; yet at the same

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time there is instilled in those minds that most powerful corrosive of social institutions—the capacity to read . . . Seen as an inner contradiction in education itself . . . [this] gives point to the desperate confusion in the social thought of outstanding American educators. ¹

While this generalization appears to omit some necessary qualifications, its central idea is clarifying; for if we analyze the discussions of democracy and education, and weigh the conflicting theories, we find two opposing points of view in line with Mr. Lerner's thought. There are briefly stated, the view of traditionalism and the view of experimentalism and change.

Traditionalism, it should be pointed out, may be entirely democratic in spirit. To look into our past for the anchor posts of democracy does not imply the absence of faith in it. The lack of faith appears when the appeal to tradition is a subterfuge to preserve vested interests or privileges which impede democracy. This type of traditionalism is not outwardly apparent in the legitimate literature of education, but without doubt it animates a great deal of the popular journalism which is constantly attacking education.

Experimentalism and change are prominent in the thought of the most outspoken exponents of democracy among recent educators. But in this point of view, we must be warned, lurk certain possibilities of defeat for democracy. This can be seen when we consider that change—that is to say, departure from tradition—may be directed toward a chosen end. The end could well be some form of totalitarianism. What it *should* be, of course, is a fuller realization of democracy.²

As would be expected, many spokesmen for education do not fit snugly into either of the groups named above. It is no doubt close to the truth to say that, if all could be measured, a normal distribution would result, showing small minorities at either extreme, and all the others scattered in between with the greatest number clustering around the middle. Nevertheless, it is convenient for purposes of discussion to hold the two views apart.

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The Position of Traditionalism

The traditionalist as a philosopher has found in utterances of the past what he believes is truth. If this truth, as he sees it, is a sufficient guide for living, he prefers to hold fast to it. If things go wrong, his truth is not at fault, but rather the way men use the truth or abuse it. Thus it is with educational philosophers who are traditionalists and democrats.

The truth that comes down from the past, it would seem, is in the nature of basic ideals or principles. To the idealist, these are usually regarded as enduring realities fixed in an eternal moral order.³ There is something of this in the traditionalist democratic educator. The source of his ideals may be the Christian religion, the philosophical writings of the eighteenth century, the Declaration of Independence and the Constitution, or some combination of these; or it may be simply the background of tradition or social bias as he has absorbed it. The traditionalist, it can well be seen, may under these premises be a person of great sincerity and intellectual dignity, or upon the other hand he may be a shallow dogmatist and even an uncouth one. There are such extremes in the teaching of Herman H. Horne, whose democracy stems from a transcendental Christian faith, and the journalistic pronouncements of William Randolph Hearst.

Prevailing conceptions of democracy are, as a matter of fact, heterogeneous. Normally, an individual's social ideals are strongly conditioned by occupational and economic circumstances and by considerations of status among his associates. What he means by democracy, therefore, is not something that he has reasoned out in solitude with his soul. More frequently it is a compromise, albeit an unconscious one, between pious generalizations and the tactical demands of his social position. In consequence, being democratic is not a comfortable relapse into contemplation of an ideal. It is something that imposes tensions within and between the reason and the emotions.

We marvel sometimes at the hiatus between democracy

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as it is preached and democracy as it is lived. One explanation is the fact that the writer or speaker retires into an idealistic mood. He is able to give the ideals full play. But his audience at once steps out into realities where the familiar environmental forces are still at work. The traditionalist is well aware of this difficulty—at least, many traditionalists in education are well aware of it—and they have discovered a way to span the gap. They need only to make it clear that our institutions as they exist are a necessary expression of the basic ideals of democracy. We may err in our operations, but the institutions themselves are the last word.

It can be seen from this that traditionalism is able to build a strong case for the *status quo*. When we consider that the dominant elements of our society—those in skilled labor, business, the professions, and finance—have their roots in the existing order, we can well understand their favorable attitudes toward traditionalism in education.

An example of one type of traditionalism appears in the writings of Herman H. Horne.⁴ The position taken by Horne makes a strong appeal to those who seek a harmony between Christian idealism and the established institutions of American life. Man's goal on earth is the eventual attainment of salvation and immortality, and this end is but the realization of God's vision and plan. There is a destined direction in this if man will but follow Jesus Christ as exemplar and guide. Man's progress has been through his own insights into God's mind, or through his growing discoveries of God's way, and in this endeavor he has found certain necessary highways. These are the basic institutions under which we live—the home, the school, the state, the church, our established business and other economic customs—all reflecting the divine idea. It is around these that all of our culture has become organized. Clearly, education's highest purpose is to conserve this great inherited past, and to transmit it as a sanctioned sub-structure essential to further betterment and prior to all else.

Another educator, William C. Bagley, has advocated a form of traditionalism which has had a profound influence

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in American thought. Philosophically, Bagley does not fit the idealistic mold. He is a realist, and his approach to educational problems is largely influenced by sociological methods.⁵ He has been impressed with evidences of moral deterioration as shown by increasing crime and divorce ratios and other similar signs, and sees these as consequences of the dominance of the machine in industrial life.⁶ He declares that the schools have aided and abetted the machine by encouraging moral laxity through "progressive" teaching. This is a mistake from the start, for the schools all along should have been developing strong virtues.

This has a direct bearing upon education for democracy. The reason is that democracy is a grant of freedom to the individual. This freedom is a dangerous thing, however, unless the individual is trained and disciplined for it. Without good judgment and restraint, democracy will degenerate into license. And here enters Bagley's traditionalism—or as some would prefer to say, his "essentialism"—for what is needed is a positive and forceful program directed at the implanting of those traits of character which have been honored in all moral societies. In Bagley's plan there is a definite way to develop these traits, and it is not by merely "teaching" them. It is through the employment of staunch and exactive methods of instruction. These are traditional methods: tasks imposed and required to be done thoroughly; obedience to rightful authority; instruction without coddling; insistence upon honest effort; logical and systematic study; accuracy and order; discipline.

These traditional methods must be administered by benevolent but firm authority, and with a constant inculcation of respect for institutions and laws. Thus the pupil will be inducted though "vigor and rigor" to the status of citizenship where the freedoms of democracy may be safely exercised. The motto is, "Through discipline to freedom." "The only freedom that is thinkable today," says Bagley, "is disciplined freedom."

Other American educators of prominence have vari-

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ously called upon tradition for guidance in the training of youth for democracy.⁷ Though differing in emphasis, there is in all of them the theme of constant fundamentals which have stood the test of time. Commonly, too, there is found an assumption of permanent value in the form and spirit of our social and economic institutions. These attitudes are seen, for example, in the teachings of Thomas H. Briggs, Elwood P. Cubberley, Ross L. Finney, I. L. Kandel, Paul Monroe, Henry C. Morrison, and George D. Strayer. President Robert Hutchins certainly comes within the same category, though he is not concerned with training for democracy so much as with the development of intellectual powers among the more capable. Unworthy of mention are many educators of local repute whose traditionalism, or essentialism, is but a tune for the applause of special interest groups and influential organizations. On the fringe are all who take the pat position that everything American is right.

Experimentalism and Change

It would be misleading to imply that the educators who may be called experimentalists stand completely apart from the traditionalists. As a matter of fact, we frequently find men in either group who are quite sympathetic with some of the views held by the other. William C. Bagley, for example, is quite in sympathy with much that John Dewey, a leader of experimentalism, represents. Conversely, it must be emphasized that experimentalists, as a rule, are in full accord on the importance of the common virtues and the principles of American democracy.

The difference is suggested in the word "change." The experimentalist opposes the idea of a static society. It is not static, as he points out, but actually changing before our eyes. Agreed, says the traditionalist, but the fundamental virtues, the essential truths, the basic conceptions implied in our institutions have not changed. Here enters the rebuttal of the experimentalist. As he sees it, the basic things are not realities with a halo of sanctity. The names

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we give them may be fixed, but their true reality lies in the meanings and interpretations we give them. And these meanings and interpretations are relative to time, place, and circumstance. Thus, the term "justice," or the term "constitutionality," has changed within the span of our memory. Examine general propositions in politics, morals, science, philosophy, logic, or any other field, and the same process of modification will be seen in some degree.

Dewey and those of like mind find experimentalism involved in this phenomenon of change. For, in fact, life is largely a business of finding out what is most workable. This finding out is an experimental procedure. Truth is a term that should be reserved for "the collection of cases, actual, foreseen and desired, that receive confirmation in their work and consequences."⁸ Truth, in fact, is in any specific case a proposition that can be proved only by results. And since we are always seeking better results—experimenting—it follows that our conception of truth must move along with what we find. This point of view is central to pragmatism.⁹

This brings us to certain significant implications of experimentalism as regards democracy. The first is that training for democracy is not an arbitrary and dogmatic teaching of truths. It is, rather, a training in the methods of intelligent experimentation. Science uses such methods. The scientist gathers his facts and bases his conclusions upon the evidence. He tests his conclusions out to see if they will work. He does not force his facts into a preconceived principle; he modifies his principles as the facts demand. Thus, in the operations of democracy, people should be prepared to seek betterment by pursuing methods analogous to those of the scientist.

For this reason, the experimentalist puts much emphasis upon the training of intelligence. Democracy can succeed only if people learn to manage the processes of judgment. They must learn to subordinate emotion and prejudice, discount preconceived ideas, get at the facts, permit the facts to speak for themselves, estimate the consequences, and then act. And following action, they must be capable

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in appraising results, discovering flaws as well as good points, and continuing the experimental process.

It is to be observed that this whole proceeding presumes that the individual is free to think and judge for himself. That is to say, he is privileged to exercise one of the fundamental premises upon which democracy is based—the right of suffrage. The central idea of democracy is the participation of its members in the determination of policies. Experimentalism tries to indicate the intelligent way to exercise this privilege.

Finally, and perhaps most importantly, experimentalism recognizes that there can be no pre-existing limitations to the direction in which the combined judgments of people will move, nor established barriers beyond which they shall not pass. The only final law is that which says that every man has the right to think.

These implications follow from the teachings of John Dewey. It is remarkable that in spite of them Dewey has been permitted to stand as a leader of American educational thought, for what he teaches opens the way to change that could not be tolerated by powerful interests. There is much evidence, however, that the truth has at last sunk into the minds of those who have institutionalized rights and privileges to protect. There is evident a strong insurgence against Dewey. Much of it appears in organs of the press that are not noted for their interest in philosophy. Much of the present furor over “progressive” education, which is regnant Deweyism, probably springs from fear of unfavorable change upon the part of those who have large stakes in the *status quo*—this, rather than revolt over Johnny’s learning to spell by playing games.

A common criticism of experimentalism is that it lacks ideals. It appears to many to be merely a method of getting along, unguided by enduring concepts of “the good, the true, and the beautiful.” It is therefore a vulgar philosophy which encourages people to direct their behavior by egoistic or sensual criteria. But this is clearly a misinterpretation of Dewey. His argument is against ideals as lodged in ultimate Being. He makes a point of the fact that

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our experience has given us "objects to admire, approve, and revere." He explains that

There are . . . moments of intense emotional appreciation when, through a happy conjunction of the state of the self and of the surrounding world, the beauty and harmony of existence is disclosed in experiences which are the immediate consummation of all for which we long. . . . These stay with us as ideal.¹⁰

But Dewey does not tolerate ideals as hypostatized or translated into spiritual entities. Regarded as such, they "are not an adequate substitute for an ideal which is projected in order to be a guide for our doings." They are worth consideration only as they engage us in efforts toward betterment. "An idealism of action that is devoted to creation of a future . . . is invincible."¹¹

Dewey's position with regard to ideals helps to dispel a common criticism of his entire philosophy, for it is claimed that change under his scheme of things would be blind change. Actually, his writings through and through idealize democracy.¹² But democracy's ideals, like all ideals, are desires to be won through intelligent social experimentation. The only intelligent method is that which science exemplifies. Education can serve progress into a better democracy only as it develops this kind of social efficiency.¹³

Change must be directed toward democracy. But it is necessary to Dewey's theory that he define democracy only in general terms, for experimentation, by its very nature, precludes the specific—it forbids blueprinting in advance. There would be constant planning for betterment, but nothing planned.¹⁴ The "proper end" of education, says Dewey, is "the promotion of the best possible realization of humanity as humanity."¹⁵ He defines democracy as "primarily a mode of associated living, of conjoint communicated experience." It is a condition in which "each has to refer his own action to that of others, and to consider the action of others to give point and direction to his own."¹⁶

Prominent among exponents of Dewey's experimental-

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ism as applied to education are William H. Kilpatrick and John L. Childs.¹⁷ While many, and perhaps most, American educators agree with Dewey in certain fundamental principles, it is significant that certain leaders of thought take issue over the question of ends. Bruce quotes M. C. Otto in this connection where he points out "the possibility and the necessity of offering concrete suggestions, in a tentative manner, of some things the good man should aim to achieve and some things he should aim to avoid."¹⁸ Along the same line, Boyd H. Bode takes issue with Dewey, strongly declaring that democracy demands "the reshaping of our entire way of life," and requires, as Berkson explains, "clear working concepts to guide us in developing a community of purposes . . ."¹⁹

Another critic, who is otherwise much in sympathy with Dewey, is George S. Counts. This educator takes decided issue with Dewey in respect to the indoctrination of youth. In Dewey's view, indoctrination is banned, for it would mean sidetracking experimentation in the interest of aims predetermined by the educator. Dewey believes that the process of discovery through experimentation is the essence of education, for it means growth. For Dewey, growth and education are synonymous. Counts, upon the other hand, declares that indoctrination, or imposition, is inevitable, and that "the existence and evolution of society depend upon it." He would have organized education join with other forces in public life and definitely advance the program of a planned democratic society.²⁰

Influence of Organizations

Organizations outside the field of professional education as well as within exert influences upon the schools and lay down programs. It is but natural that any organization with a strong patriotic interest should look upon the school as the proper vehicle for its particular interpretation of democracy. The same may be said of organizations professedly patriotic, but open to at least a suspicion of selfish interest. In fact, any complete study of democracy and

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education would have to consider the influence, direct and indirect, of a great number of organizations and agencies which undertake either to mold opinion or to impart attitudes. Bessie L. Pierce, in her study for the Commission on the Social Studies, appointed by the American Historical Association,²¹ found over two hundred national organizations which have made official pronouncements intended to influence political or economic opinion through the schools, usually in highly controversial areas. Many of them exert powerful pressures of one kind or another.

A survey of all interested organizations would include societies growing out of our wars, such as the Sons of the American Revolution, Daughters of the American Revolution, and American Legion. There would be business and industrial groups: chambers of commerce, the National Association of Manufacturers, and organizations of labor. There would be found various racial and religious groups. Numerous fraternal societies would be included, for example the Masonic order, the Knights of Columbus, and the Ku Klux Klan. Included would be certain youth movements having one type or another of social-economic bias. Of importance would be a number of religious denominations which have formulated strong social programs. And notice would be taken of the unselfish work of such groups as the Girl Scouts, the Camp Fire Girls, the Boy Scouts, and similar organizations.

While these many groups must be included in any analysis of the educative forces influencing our democratic society, we cannot here go into their methods and policies. Instead, we intend briefly to summarize the work of certain organizations within the profession of education. We turn to these for the reason that educators have become intensely aware of a critical need for training in democracy, and because they are the ones most directly responsible.

Commission on the Social Studies. One of the most extensive and detailed studies of the problem of education for democracy was that undertaken by the American Historical Association. In 1929 this body appointed a Commission on the Social Studies in the Schools, consisting of a

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large and distinguished group of educators and experts in the social sciences. The Commission projected a series of reports to appear in sixteen volumes, with tentative plans for further publications. Every important phase of the problem has been covered in books now available.

The section of the report that has received widest attention is published under the title, *Conclusions and Recommendations of the Commission*.²² This summary appeared in the midst of the economic depression which began in 1929, and reflects somewhat the effect of economic tensions.

Chapter II of the report lays down a "frame of reference" which contains the statements of most significance for the present summary. A briefed extract follows:

- (1) Western civilization is merging into a world order.
- (2) Faith in economic individualism is being modified.
- (3) We hold to a national tradition of government and ideals based on popular democracy.

(4) There is the appearance of a "rather general dependence of the individual on corporate organization, machinery, and other capital for the right to labor and to share in the profits of production," and therefore there are "created new problems in the preservation, development, and fulfillment of the ideals of American democracy."

(5) There is a great and growing demand for "introduction into economy of ever-wider measures of planning and control . . . A new age of collectivism is emerging."

(6) The Commission deems desirable the use of material, technical, and educational resources to raise the economic, moral, and aesthetic standards of living; to preserve individualism in ideals, culture, invention, and personal growth; to enlarge sympathetic understanding and mutual toleration among diverse groups in America; to spread accurate knowledge and informed opinion; to develop an enlightened attitude toward international relations; to check economic imperialism.

The Commission emphasizes the primary importance of the scientific method (experimentalism); but not this method exclusively, for "Such immensely significant attributes of man as creativeness, planning, and ideals rest not on empiricism alone, but also upon ethical and aesthetic considerations."

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While this report is ostensibly limited to the social studies, its general bearing upon democracy and education is obvious. That certain statements in the report should have raised a storm of protest in various quarters is not surprising. Those statements are given here with no intention either to approve or condemn.

The Progressive Education Association. In the later years of its activity the Progressive Education Association gave a great amount of attention to the relationship between education and democracy.²³ The Association's interest in the social aspects of education evolved out of its earlier emphasis upon the child as the center of educative activity. Events proved that the child's development cannot be considered apart from the society surrounding him, and it became clear that social betterment is essential to any program that contemplates the improvement of human beings. This development of policy emerged early in the years of the economic depression, and largely due to this fact the social pronouncements took on a "crisis" character. Some leaders of the Association, speaking unofficially, came out strongly for a planned democratic society. Among these were George S. Counts, as mentioned above, and William H. Kilpatrick. The latter, recognizing "grave evils in our economic life," declared that

A fundamental remaking of our economic system seems necessary so that men shall no longer be compelled to work against each other but may rather be permitted and encouraged—and if a recalcitrant minority requires it, be compelled—to cooperate for the common good.²⁴

A last and authoritative pronouncement was issued by the Progressive Education Association in 1941.²⁵ This report rejects the idea of a planned economy as a means of giving direction to educative effort. Social change is emphasized. If we are to bring order out of confusion, we must become liberated from set views, from ignorance and intolerance, and from the struggle for individual success; and we must increase belief in the common man. The aim of education is the development of the "democratic per-

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sonality," and in analyzing this aim for purposes of the curriculum, three guiding ideas are presented:

- (1) The ability and zeal to use the method of reflective thinking in meeting the problems of living.
- (2) The ability and zeal to act cooperatively in solving problems of common concern.
- (3) The cultivation of the attitude of social sensitivity.

The Educational Policies Commission. Nothing is so indicative among educators of the widening interest in democracy as the fact that the great national organizations have made it a major issue. A significant step was taken by the National Education Association in 1931 when it appointed a committee to propose "desirable social-economic goals of America."²⁶ This was followed by a Joint Commission on the Emergency in Education appointed by the N. E. A. and the Department of Superintendence, in 1933. The Joint Commission was given broad powers, among them "long-term planning" to meet the challenge presented by "the changing social, industrial, and economic order." Out of this Commission came recommendations resulting in the creation, in 1935, of the Educational Policies Commission which now represents jointly the N. E. A. and the American Association of School Administrators.

The work of the Commission has by no means been limited to democracy and education; but this general topic has been their major concern, as is shown by the fact that most of their publications have dealt with various aspects of it. Some idea of the scope of their studies and recommendations is conveyed by the titles of some of their best known publications.²⁷

The Unique Function of Education in American Democracy, (1937).

The Purposes of Education in American Democracy, (1938).

The Structure and Administration of Education in American Democracy, (1938).

Education and Economic Well-Being in American Democracy, (1940).

Learning the Ways of Democracy, (1940).

The Education of Free Men in American Democracy, (1941).

Education for All American Youth, (1944).

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To review the entire work of the Commission as it affects American democracy is obviously out of the question. Certain significant points of view should, however, be pointed out.

1. The youth must be impressed with the great historical and cultural heritage of America.
2. The ideals of democratic process must be implanted.
3. The major objectives in education must be made the purpose of planning: self realization, human relationship, economic efficiency, civic responsibility.
4. Fundamental changes in educational procedures are necessary to meet a changed and changing society.
5. Equality of educational opportunity must be secured.
6. The schools must be kept in close touch with the people.
7. Education must be kept a function of the state.
8. Teachers have a right to contribute to educational policy.
9. The individual must be given every opportunity to rise through his own effort.
10. Democracy as a great social faith must be inculcated.
11. Free men have to be trained in the loyalties and discipline of freedom.
12. Education must be adapted to the needs of all youth.

The extensive recommendations of the Commission are themselves illustrative of the methods of democracy. They are challenging ideas thrown out from a center of prestige and leadership with the object of stimulating discussion and action by local authorities.

The Methods of Democratic Education

It will occur to anyone that words are not enough. Definitions of democracy and aims of democratic education may be noble and profuse, but their formulations do not change people. There has to be a process by means of which the words may be translated into habits, attitudes, and convictions, and the process is not so simple as pleading, lesson giving, reasoning, or exhorting. People become what they become through real and complex experience, and education for democracy consequently demands an elaborate direction of appropriate activities. A central

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consideration in this is the emotional element, for people do not become democratic through the intellect. They have to feel it, and feelings generate out of living experience.

John Dewey speaks of "two elements" which "point to democracy."

The first signifies not only more numerous and more varied points of shared common interest, but greater reliance upon the recognition of mutual interests . . . The second means not only freer interaction between social groups . . . but change in social habit—its continuous readjustment through meeting the new situations produced by varied intercourse. And these two traits are precisely what characterize the democratically constituted society. ²⁸

This statement of Dewey's, if elaborated and developed in detail, leads to the best practices of democratic education as we understand them today, for it is through shared experience that we endeavor to bring about the desired ends. This shared experience develops under the leadership of the teacher, and in circumstances controlled and directed appropriately. In the numerous relationships of children, as they work and play together, the habits must be formed which guide their dealings with one another; and the feelings, attitudes, and sympathies which sustain democratic relationships must similarly be instilled. In like fashion, through problems mutually shared, studied, and dealt with, the uses of intelligence in exercising the privileges of democracy are to be cultivated.

This general statement needs to be amplified. The experiences of the learners are not only those of the classroom. Actually, they include *all* experiences, including those of the playground, the out-of-school hours, and the home. Some of these are obviously beyond any direct control of educational authorities. This is particularly important. The home influences, for example, may be such as to counteract the efforts of the school almost entirely.

If children are to acquire the habits and attitudes of democracy, it can only be through learning, and consequently the basic principles of learning have to operate.²⁹ It is a problem in "conditioning" in the broader sense.

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Such habits as cooperation, fair dealings, regard for the opinions of others, acceptance of common rules, and so on, cannot be implanted except as those actions bring more satisfaction than contrary ones. Haphazard experience does not assure this by any means.

Not only the social relationship of pupils, but the content of their curriculum, is important. If pupils are to learn how to live democratically, it is quite obviously necessary that their studies shall in large part deal with the world in which they actually live. This is primarily true, of course, with respect to the social studies; but it must be seen that the tools of learning and the esthetic aspects of the curriculum have an incidence upon the social life. In all respects, the curriculum has to be interpreted and presented with the end in view that living in a democracy will be cultivated morally, esthetically, and efficiently.

It is further important that the curriculum be administered in such a manner that it give opportunity for intensive social thinking. It is here that pupils must learn the processes of dealing democratically with common problems. This involves the practices of cooperative planning and effort, sharing of responsibility, getting and evaluating data, discussion, testing of conclusions, awareness of propaganda devices, and the like. The importance of these experiences increases as the pupils advance through the grades.

And since democratic living demands self-discipline, the administration of the curriculum must be effective in developing habits of character. Such habits are meant as those which contribute to observance of regulations and laws, persistence and thoroughness in the performance of tasks, honest effort, accuracy, respect for the contributions of others, and similar ones. Here again, reliance upon verbal appeal counts for but little. Rewards, likewise, are out of place. Habits are formed through action, through doing. And they are learned specifically; for example, there is not a *habit* of thoroughness, but *habits* of thoroughness. Verbal discussion of their values and their reasonableness, while they are learned, helps to spread them beyond the specific activity in which they are formed.

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The general principles set forth above bear a great deal of detailed analysis.³⁰ Here it can only be pointed out that these principles apply throughout the elementary and secondary years, adapted necessarily to the maturity of the pupils. In the secondary schools there is a wider area of democratic experience made possible in the scope of extra-curricular and student-body activities, and a great responsibility lies upon school authorities to make this fruitful. The study of democratic institutions and practice in democratic thinking also takes on an added importance in the secondary schools.

A debated question in the teaching of all thought-provoking subjects is that of indoctrination. The Dewey point of view has held that instruction should never be so directed as to impose judgments or opinions upon pupils. The reason for this is that democracy is based upon the principle that individuals shall think for themselves. To predetermine what pupils shall believe is fascistic. The duty of the educator, it is said, is to train in the effective processes of thinking, but only that. There is much opposition to this view, however, both from conservative and liberal sources. Traditionalists hold that children should be indoctrinated with favorable attitudes toward the established institutions, including the usages of the capitalistic economy. Many liberals hold, upon the other hand, that the most intelligent thought recognizes certain desirable kinds of change, and that indoctrination favorable to such change should be undertaken.

The reasonable solution of this problem, as the present writer sees it, is implied in the whole discussion of democratic education, namely, that indoctrination in the principles and processes of democracy is the very purpose of all that we are doing in the schools. But at the same time, if we are democratic, we shall not indoctrinate in any matter that lies open to the decision of democracy through popular process. It is to be admitted that this policy presents a somewhat indeterminate border zone, but this seems inevitable.

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Obstacles to Democratic Education

It was said above that the fine phrasing of democratic ideals can get nowhere without effective means by which they may be implanted in the personalities of youth. But even with a knowledge of such means, we meet obstacles which often seriously hinder our purpose. These obstacles are the interferences and pressures which arise from the community. Such difficulties are inescapable, for all public eyes are on the schools. So far as the general public is concerned, the schools are in no uncertain sense the agents of popular will. This position is, in fact, based upon legalistic truth, but it frequently reduces to a subordination of the schools to whatever interests are able to bring powerful pressure to bear upon them.

The fact that the school is legally and constitutionally the agent of the state leads many to presume that the school has no function of leadership in social policy. This position, however, is not sustained by those individuals and organizations that are guiding educational thought. It is held by them that education necessarily embodies a certain moral mandate to seek and advance what it considers desirable for the general welfare. This policy is clearly evident in the resolutions and publications of such great bodies as the National Education Association, the American Association of School Administrators, and numerous other groups. The reason their recommendations do not readily carry over into practice is largely to be found in the action of resistant groups and the compulsion of local attitudes.

The school superintendent may go home from a national convention filled with enthusiasm for an idealistic program, but back in his home town he becomes keenly aware of the forces that will oppose it. He has to yield to those forces, though perhaps with the hope that he may bring them around to his way of thinking in the long run. As a matter of realism, it need only be mentioned that he has to deal with his own school board, with the influence of the press, with the chamber of commerce, with the labor organizations, with the American Legion and the Daugh-

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ters of the American Revolution, with the dominant religious groups, and with prevailing attitudes on racial and other social problems.

As previously pointed out, many organizations exert their pressure upon a nation-wide scale.³¹ Often great groups of newspapers launch campaigns directed at the school. From such sources sprang a great wave of "witch-hunting" in the 1920's. Upon various occasions wide attacks have been made upon the teaching of American history. Recently we have seen the crusade against progressive education and the spread of the indictment that our schools are neglecting to teach the fundamentals.

While school leaders in large part urge that controversial issues be opened for impartial discussion among students mature enough to think about them, we find in practice that this cannot be undertaken in many localities. In principle it would seem desirable that students be permitted to study issues from all sides; but when this approach admits consideration of unpopular points of view, the teacher may find himself in trouble. Opposition of this kind drove the Rugg textbooks in social science from many school systems because those books presented material objectionable to various interests. For some time in the District of Washington teachers were forbidden to teach communism, but the ruling was so interpreted that they did not dare mention it under penalty of loss of salary.

Numerous episodes have demonstrated the difficulties that lie in the way of democratic education. On record are the many occasions when college teachers have been forced from their positions because of the opposition of offended special interests. The same fate has befallen public school teachers because of their suspected affiliations or their participation in unpopular movements. In many states teachers are singled out as a class and required to take a loyalty oath.

These many obstacles are presented here as a significant phase of the total picture of democracy and education in America.

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NOTES ON THE CHAPTER

1. Max Lerner, *Ideas Are Weapons* (New York: The Viking Press, 1939), p. 514.
2. See Elmer Harrison Wilds, *The Foundations of Modern Education* (New York: Farrar and Rinehart, Inc., 1936), unit XVII, for an extensive discussion of traditionalism and experimentation.
3. The idealism presented by Professor Merritt Thompson in this volume (chap. 2), following the Italian philosopher Gentile, does not take this position. For a critical commentary, see P. F. Valentine, "Agenda for Philosophers," *School and Society*, LIX (May 27, 1944), 371-372.
4. Notably in his book, *The Democratic Philosophy of Education* (New York: The Macmillan Company, 1932).
5. For a clear and vigorous statement of his position, see his book, *Education, Crime, and Social Progress* (New York: The Macmillan Company, 1931).
6. See the present writer's discussion in chapter I of this volume.
7. By way of summary, see Norman Woelfel, *Molders of the American Mind* (New York: Columbia University Press, 1933), pp. 50-81, 157-178.
8. Quoted by C. V. Newson in Jay C. Knode, ed., *Foundations of an American Philosophy of Education* (New York: D. Van Nostrand Company, 1942), p. 19.
9. See Chapter V in this volume, by George E. Axtelle.
10. John Dewey, *The Quest for Certainty* (New York: Minton, Balch and Company, 1929), pp. 302-303.
11. *Ibid.*, pp. 303-304.
12. See, for example, his various essays under the general title, *Freedom and Culture* (New York: G. P. Putnam's Sons, 1939).
13. John Dewey, *Democracy and Education* (New York: The Macmillan Company, 1916), chapter XI and pp. 317-322.
14. See the critical discussion in William F. Bruce, *Principles of Democratic Education* (New York: Prentice-Hall, Inc., 1939), chapter XIV.
15. John Dewey, *Democracy and Education* (New York: The Macmillan Company, 1916), p. 111.
16. *Ibid.*, p. 101.
17. See William H. Kilpatrick, *Education for a Changing Civilization* (New York: The Macmillan Company, 1926); and John L. Childs, *Education and the Philosophy of Experimentalism* (New York: D. Appleton-Century Company, 1931).
18. William F. Bruce, *op. cit.*, p. 321, from M. C. Otto, Review of Dewey's *The Quest for Certainty* in *Philosophical Review*, (January, 1931), p. 87.
19. Quoted from I. B. Berkson, *Education Faces the Future* (New York: Harper and Brothers, 1943), p. 196. See this reference for an analysis of Bode's position as presented in the latter's volume, *Progressive Education at the Crossroads* (New York: Newson and Company, 1938).
20. See the brochure by George S. Counts, *Dare the Schools Build a New Social Order?* (New York: John Day Company, 1932), and his book, *The Prospects of American Democracy* (same publisher, 1938), chapter VIII and XII.
21. Bessie L. Pierce, *Citizen's Organizations and the Civic Training of Youth* (New York: Charles Scribner's Sons, 1933).
22. New York: Charles Scribner's Sons, 1934.
23. Reacting to a popular clamor against progressive education, the Progressive Education Association reorganized in 1944 into the American Education Fellowship.

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24. William H. Kilpatrick, "The Essentials of the Activity Movement," *Progressive Education*, XI (October, 1934), pp. 346-359.
25. "Progressive Education: Its Philosophy and Challenge," *Progressive Education*, XVIII (May, 1941), supplement.
26. See the report of this committee, *The Social-Economic Goals of America* (Washington: National Education Association, 1933).
27. All published by the National Education Association, Washington, D. C.
28. John Dewey, *Democracy and Education* (New York: The Macmillan Company, 1926), p. 100.
29. See the chapter on "Primary Social Functions of the School," by Harold S. Tuttle, in this volume, especially p. 384.
30. See Educational Policies Commission, *Learning the Ways of Democracy* (Washington: National Education Association, 1940).
31. See Bruce Raup, *Education and Organized Interests in America* (New York: G. P. Putnam's Sons, 1936).

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CHAPTER XX
SOCIOLOGICAL FOUNDATIONS
OF EDUCATION

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Since the evolution of the individual is indissolubly interconnected with the conditions surrounding him, and especially with his social environment, it is obvious that among the main auxiliary disciplines of education must be included sociology. While biology and psychology have long been regarded as pillars of education, society can no longer afford to omit from its formal training the study of man in relationship to his group, and how to prepare him for it.

What is Sociology?

Sociology is often described as a science which picks up crumbs spilled from the groaning table of the other social sciences; also, as the basic social science — a sort of central switchboard which would coordinate all the other social sciences. But the fact remains that sociology is concerned primarily with the analysis of the processes that grow out of association, in particular those relating culture and personality. Culture includes the body of practices and beliefs which characterize the nature of group life. Sociology is interested in the aspects of human behavior

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pertaining to, and arising out of, the interaction among men living in groups which are the bearers of a cultural heritage. Personality, on the other hand, represents the adjustment of the individual to a cultural setting. Thus sociology is one of that group of subjects classed as the social sciences, all of which describe the objective study of social experience. As such, however, it is merely one division in a larger field of study. It aims to discover, through empirical research, knowledge about the social life of man and its relation to the factors of culture, natural environment, the functioning of groups, culture changes, and the effect of different patterns of culture on personality.

Education, for the sociologist, is fundamentally a social matter, a phase of the social process, a practical science, showing "what ought to be," that is, how the youth ought to be educated and prepared for life. Sociology, on the other hand, constitutes a definite amount of empiric knowledge of "what is."

Educational Sociology

Unfortunately, sociology in its relationship to education, generally known as educational sociology, still remains in the twilight zone of the social sciences, not only in the estimate of its worth, but also in its viewpoint, scope, and methods. It is still an orphan which the editors of the scholarly and monumental *Encyclopedia of the Social Sciences*, completed in 1935, refused the privilege of being considered a member of the social sciences by the simple process of failing to mention it as a subject, or to include references to studies devoted to it.¹

The uncertain position of educational sociology is caused, in addition, by complications arising from the use of various terms, such as "social pedagogy," "sociological pedagogy," "the sociology of childhood," etc., which are in use abroad.²

But there is little disagreement with the fundamental assumption of the educational sociologist that education is a social phenomenon with definite social goals. The only questions that remain are how far the school ought to be

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socialized, for what goals, and how far the individual personality ought to be submerged in the process. Answers to these questions are sought mostly in philosophy and more recently in aggressive ideologies. At the same time, the issue is being narrowed down to the problem of the precise application of the social sciences to the whole field of education. Education is being integrated with sociology, the latter considered by many "educators" as a sort of supporting beam of pedagogy — in addition to philosophy, anthropology, psychology, biology, ethics, logic and esthetics. Out of these latter groups have developed such marginal fields as educational philosophy and educational psychology. Similarly, educational sociology has become the new marginal science uniting sociology and education. Through their union the knowledge of sociological methods, problems, and generalizations may be adequately interpreted to every educator.

There is one point on which the entire literature of educational sociology seems to agree: that education must be suited more to the social need.³ The general consensus seems to be that our education in the past has lacked much of social knowledge, values, and application.

Educational sociology arrives on the stage as an attempted response to this need. Although there is still a debate going on whether it is a branch of education more than it is a branch of sociology,⁴ it is first of all sociology as far as this writer is concerned; it is first of all sociology applied to the solution of fundamental educational problems. The promise upon which it is based is that both fields are attempting to improve the same social order. While sociology examines the field, knows its structure, and describes its functioning, education attempts to enlighten and improve this same order. The only logical thing, then, for them to do is to get together under a common head and thus produce better results.

Results and Gains

The results of the impact of sociology on education are more than plentiful today. A bird's eye view indicates

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particularly the utilization of sociological researches in the following fields: the social genesis of personality; the family as an educational agency; informal groupings of children; the relation of community to education; the role of the teacher in community and in educational processes; the social and educational significance of play and art; a sociological curriculum; character, education; civic education; adult education; race conflicts and education; the problems of the immigrant and of the second generation in relation to the school; the role of the school in preventing juvenile delinquency; education for war and peace; the sociology of college life; religious education; motion pictures and education; propaganda and education; radio and education; education in rural areas; and the like.⁵

Take, for instance, the problem of the immigrant and the second generation. Much has been said about crime among the foreign-born, and opinion has it that the foreign-born as such are largely responsible for our high crime rate and frequent "crime waves." But educators and sociologists know now, on the basis of researches, that the conflicts engendered by the differing cultures of native-born children and their foreign-born parents, and between the former and the American environment, are partly responsible for the high delinquency rates in this group. The racial composition of second-generation criminals suggests furthermore that these cultural conflicts are greater or more hazardous in certain nationality groups than in others. Delinquency is, moreover, much more frequent among children of families of low economic status, and hence among the children of those immigrants who are the most recent arrivals.

The availability of such information has led to the development of special educational programs known as "Americanization," for the cultural and political absorption of immigrants under both public and private auspices. Today it is generally conceded that classroom education of the adult immigrant can be but a fraction of the total process of Americanization — another expression of the new

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concept of education propounding that formal instruction in language, history, traditions, customs, behavior patterns, economic techniques, social attitudes and values, and loyalties is inevitably dwarfed under the existing social order by the experiences of everyday life. Hence many educational programs for the immigrant are today related directly to his social experiences, which, in turn, are related to general community activities.

The problems of race, as well as of national origin, are today approached on the basis of a sound sociological research. We know that race as a basis for conflict is a fictitious criterion, founded upon a compound of myths and half truths, conflicting personal or group aims, and ideologies. Observation by children of differential treatment of people on an arbitrary racial basis, by adults, must essentially confound any principle of social behavior founded upon universal human values, and may lead to frustration in other spheres of social morality.

It is this factor that has made important an examination of the sources of racial prejudices and the mechanisms by which they are perpetuated, as a part of the process of education itself. The public school, the sociologist feels, can contribute to a distortion of sound social values by uncritical and prejudicial teaching. The press, the radio, and the motion picture, as sociological studies have shown, also help to perpetuate the racial stereotypes which provide an emotional basis for conflict. Constructively speaking, since race prejudice is social rather than instinctive, the school has an important role in the sound socialization of youth.

These examples are mere illustrations of the sociological approach to problems affecting education. Instances of equal significance would run into an extensive literature. It would seem obvious that sociology must continue as an invaluable source of knowledge for the administration of education, regardless of whether educational sociology be formally recognized as a "subject."

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Sociological Aspects of Early American Educational Theories

The theoretical background of educational sociology can be traced to educational, philosophical, and sociological theories of the 17th, 18th, and 19th centuries in France, England, Scotland, and Germany. The study of human behavior from actual human affairs, rather than through the study of the classics, was initiated. Aiming to give up any *a priori* method, this method produced a definite methodology for the investigation of human problems. Here were the roots of the later rise of sociology and the scientific foundations of education.⁶ Especially we must note the name of Comte who was one of the earliest scholars to suggest that sociology must be built upon the biological sciences. Other thinkers who have had influence on America's development of educational sociology have been Bagehot, Tarde, and Herbert Spencer.

Educational thinkers in the United States in the latter part of the 19th century, influenced by significant European schools of thought and conscious of the critical social problems created by the Civil War, began to concentrate definitely on the matter of using education for social control and defining the social function of education. (Wines, Mann, Harris, Dewey, Baldwin, Ward, Small, Vincent, Giddings, Ellwood, King, Ross, and Cooley).

As early as 1893, the suggestion that sociology be applied to education, in the United States, appeared over the signature of Dr. W. T. Harris, who said, "No philosophy of education is sound . . . unless based upon sociology."⁷ Three years later Harris repeated his demand before the National Education Association. The same year was published a small work containing the educational credo of Dewey, "My Pedagogic Creed."⁸

In 1897 E. A. Ross offered a course at Stanford University in "Social Aspects of Education";⁹ the same year appeared George E. Vincent's *Social Mind and Education* (New York: The Macmillan Company, 1897), and J. M. Baldwin's *Social and Ethical Interpretation in Mental Development*. King's *Social Aspects of Education*

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was published in 1912 (New York: The Macmillan Company), and G. H. Betts' *Social Principles of Education* (New York: Charles Scribner's Sons), appeared the same year.

The development of this field in America has been obviously very rapid. This is explainable by the general interest of Americans in education and in the practical solution of social problems, accompanied by the well-known characteristic of American scholarship, its practical and reforming tendencies, the encyclopedic type, frequently without any substantial theoretical background. As a consequence the concepts of the subject are discussed very briefly and in an offhand manner.

This weakness is, of course, inherent in the very subject of the discussion. The social ideal is outlined only generally, as done for example by Durkheim, who demands that the egotistic and anti-social child be quickly inoculated so that another personality, social and moral, will be produced; or the ideals of the different social orders and the ideological systems are shown at cross-purposes.¹⁰ In other words, each social system and ideological system conceives differently its social goals. Thus the Russian communist visions his ideal differently from the average American, and the average American Protestant sees it differently from the confirmed Catholic.

American Sociological Pioneers and Education

During the first twenty-five years of the history of educational sociology in the United States, educational and sociological literature was dominated by the concept of the social function of education and by the theory that sociology should be applied to educational procedures and goals. The theories of educationists and sociologists modified each other during this period and developed a philosophy of social education which produced the philosophical school of educational sociology. The background of this development is connected with the American pioneers of sociology — Ward, Small, Sumner, Giddings, Ross — all of whom were interested in education.

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Lester F. Ward has had a greater influence upon educational thought in America than any other sociologist; even today a good deal of current educational theory is mainly an adaptation of Ward. The central theory of Ward was the control of social progress by means of education, "the proximate means of progress." To insure progress, knowledge must be available to all, and schools become free and compulsory. Formal education should establish as its objective for educational procedure the criterion of social utility; it should be social education.¹¹ Ward's firm conviction of the efficacy of social planning, and his faith in average but ambitious persons led him to advise society to educate wisely the average intelligence. He urged the distribution of useful knowledge to all humanity everywhere — the socialization of education. He supplemented a demand of sound birth with a notion of the importance of a sound environment, which would result in a society of sound people.

Ward's writings reflected the consensus of judgment of American leaders and educators in the latter part of the 19th century; Ward also reflected the influence of the concept of social progress which dominated a large portion of European sociological theories by his theory of purposive evolution (telesis) and in his belief in nurture as against nature, as the source of human ability and achievement.

A. W. Small emphasized the fact that the school is a social institution, that its aims are social, and that its management, discipline, and methods of instruction should be dominated by a social frame of reference. Vincent, an early collaborator of Small's at the University of Chicago, also advocated social education. F. G. Giddings argued vaguely for "social engineering," and in his last work, *The Mighty Medicine*.¹² he saw a conflict between natural knowledge upon the one hand and "occultism" or traditional and sacrosanct education upon the other. A stubborn conflict goes on between two irreconcilable conceptions and realities of education. One "fights in defense of mystery-dispelling knowledge and of intellectual liberty," and the other is "traditional and sacrosanct," which "crushes

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intellectual liberty when it can, . . . hates the scientific knowledge of nature with implacable hatred, for that knowledge exposes magic and discredits it." Present-day education is "deplorably infected with superstition and is systematically occult." The situation can be "ameliorated only by a liberal education adequate to clarify vision while extending its range, and potent to develop individual and collective self-control." "Education is a continuing reconditioning. It can be good or bad."

Then E. A. Ross wrote his famed *Social Control* in 1901.¹³ He propounded that education must be the foundation for a system of social control. Another sociologist influencing the rise of educational sociology has been Cooley.¹⁴ He was convinced that human nature needs not to be changed, but to be enlarged upon through the utilization of sympathy, love, and other primary group impulses. This appealed to the educators of the first part of the 20th century, and particularly Cooley's ideas of the nature and functions of the primary groups, such as the family, playground, and neighborhood, and that social consciousness could be stimulated by public schools as "primary groups." Furthermore to education Cooley assigned an important task in the development of socialized personalities. Like Baldwin, Cooley emphasized the importance of the family and the rearing of the child for the life of society. Even today Cooley's ideas are in fashion, especially his theory of the significance of the socialization of personality through the primary groups and the school, in preparing one to participate in democratic group life and to realize individual happiness. Our educational ideology is, in fact, under the spell of Cooley's belief, held by his professional friends, that the social environment, especially the school environment, can be controlled to such an extent that social life can be made anew.

The final influence from early American sociology came through Sumner, whose popular work, *Folkways*,¹⁵ aroused many educators to a reconsideration of the school system. Sumner defined education as "transferring to him (the child) the mores. He learns what conduct is approved and what disapproved; what kind of man is admired

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most; how he ought to behave in all kinds of cases; what he ought to believe and reject." Education means discipline, knowledge is power to be used for good or ill. Sumner's ideas, especially, broke down some of the educational optimism and complacency that was still dominant in the first decade of the present century.

Recent American Sociologists and Education

Next to the work of the American sociological pioneers, the most influential exponent of the socio-psychological aspects of sociology is Charles A. Ellwood, who has been untiring in his writings in asking for the application of ethical and social values in constructive social welfare programs, advocating social education as a means of effective social control for promoting social progress. A marked but exaggerated popularity was gained by William McDougall, an extreme proponent of the theory that all man's actions, feelings, thoughts, motives, ambitions, from the cradle to the grave are but the operation of his instincts. McDougall's *Social Psychology* had a tremendous vogue, became one of the most influential books of its generation, and was a best seller. Educational theory has been profoundly influenced by this "instinctive theory."

There have been too many schoolrooms in which have sat, at straight rows of identical desks, children of the same age, supposedly endowed with the same instincts, and so to be treated alike. Classroom organization has been arranged in such manner as to allow the child's unfolding instincts free play. Elaborate curricula have been devised to provide materials for the instincts of play, construction, collecting, and the like. The child has been regarded as a mosaic of instincts reflecting primitive men's experiences with his environment. ¹⁶

McDougall is still fashionable, although the "instinct" theory has been explored by such critics as Dunlap, Zorbaugh, Kantor, Hunter, Bernard, Kuo, Allport, Faris, and Josey, who recognize the importance of inborn human nature but also assign more importance to social environ-

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ment and the "conditioning processes," as developed by Pavlov and the whole group of "reflexologists."

The process of the social creation of human personality has received suggestive attention in the theory of George Herbert Mead,¹⁷ who explains how self-attitudes develop from social attitudes. Applied to education, the theory is of utmost importance; we can see readily the value of childhood in building a self-consciousness that promotes or handicaps later mental efficiency and happiness. Mead had been preceded by W. I. Thomas, who utilized Cooley's theory of "self-consciousness," to construct his famous "four wishes" (the desire for new experience, the desire for security, the desire for response, and the desire for recognition).¹⁸ Thomas' theory has provided the starting point of numerous sociological researches into the disorganizing social processes and culture areas, and the modification of "social attitudes" for educational processes. The contributions of Park, Young, Bernard, Bogardus, Burgess, Faris, McKenzie, Thrasher, and Sellin are indispensable for the understanding of the "educational" influences of the non-school agencies (movies, gangs, immigrant areas, the play group, occupational attitudes, slum influences, and the like) by the educational sociologist.

Various Schools of Educational Sociology

The philosophical, "value-judgment" approach has never been given up in sociology, particularly by those who seek to apply sociology to education. Recently, however, sociologists have been more concerned with concrete analyses of social processes and empirical social research than with speculative social philosophy. This influence is evident in educational sociology which, in general, can be divided into three branches. (1) The largest group contends that sociology is a practical and auxiliary science of education which ought to be utilized in determining educational processes and goals. (Snedden, Peters, Weiss, Hesse-Gleyz, Chancellor, Clow, W. R. Smith, R. C. Angell). (2) Another school, headed by E. George Payne, of New York University, insists that educational sociology is more soci-

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ology than education; that any adequate educational program must be based on sociological research and focused around the influence of cultural and group factors upon personality (Zorbaugh, Thrasher, F. J. Brown, Joseph S. Roucek, Cook, and Zeleny). Sociology determines the immediate objectives, in the sense that it specifies the conditions which must be taken into account if the general aim is to be promoted. Sociology as a science, like psychology, is fundamental in its application to the whole educational process. (3) This socio-scientific approach merges in a third small group, which aims to develop a special science of the "sociology of education" (Znaniecki, Waller).

Textbooks in Educational Sociology

The first textbooks bearing the term of "Educational Sociology" in the title were the studies of Walter R. Smith and David Snedden.¹⁹ Smith defined the subject as "the application of the scientific spirit, methods, and principles of sociology to the study of education," and conceives of the school as a social institution for the advancement of group life, as well as of individual efficiency. Snedden insisted that "educational sociology has as its province the scientific determination of educational objectives." Thereafter several textbooks in the field began to appear (Chancellor, Finney, Kinneman, North, Beard, Tuttle, and others). Possibly one of the best known is C. C. Peters' *Foundations of Educational Sociology*.²⁰ He outlines the methods by which the objectives of school education can be scientifically determined. He also analyzes the social institutions and processes, and sets up techniques for the determination of certain educational objectives. For Payne, on the other hand, the more important functions of education are: (1) the assimilation of traditions; (2) the development of new social patterns; and (3) the creative role of education. "The educational sociologist is concerned primarily with the first two functions; the third is more or less a matter of guesswork. The first two admit of research, experiment, and scientific conclusions, and therefore the procedures may be scientifically deter-

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mined."²¹ Kulp aims to apply sociological techniques to education of various kinds for wide varieties of types and groups of persons, youths, and adults.²² Cook is interested in the field of school and community relations—types of American community life, child-shaping influences (family life, play groups and gangs, the school, children at work, youth on the road, motion pictures, radio and reading, race relations, and religion), and the role of the teacher and the school in the community.²³ The latest survey of this field by outstanding specialists is Roucek's *Sociological Foundations of Education*.²⁴

The Sociology of Education

Recently a few isolated attempts have been made to develop the "sociology of education," which, according to Waller,²⁵ represents a totally new emphasis. Its purpose is (1) to describe with all possible care the social life of human beings in and about the school; (2) to analyze these descriptive materials, particularly from the standpoint of sociology and social psychology; and (3) to attempt to isolate causal mechanisms involved in those interactions which center in and about the school.

The Sociology of Knowledge

The recent emphasis of sociology upon our understanding of the "sociology of knowledge," and the discussion of the role of ideology played in social control and as a social force,²⁶ is now being projected into educational literature concerned with educational goals and objectives. A fashionable trend in this field was inaugurated by the translation of Karl Mannheim,²⁷ whose ideas began to receive popularity concurrently with the appearance of Pareto.²⁸ The basic significance of irrational factors in the operation of the well-balanced personality and the healthy functioning of the social body, and a needed insight into the problems of the contemporary social structure, have been injected into our knowledge of social equilibrium. Mannheim's general thesis is that the problems of present day

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western society are due to the preponderance of the irrational elements in social organization and personality over the rational ones. This he attributes to the disproportionate distribution of reason and knowledge in society, and to the unequal development of morality and technique in human history. He raises questions concerning the nature, necessity, and limits of rational social planning. He thinks of judicious social planning as the one way out of cultural crisis.

Recent Trends in Educational Sociology

In America, the undercurrent of critical ideas has been growing. From the educational world came voices asserting that progressive education had gone too far, particularly as the results began to appear in the effects of the depression of 1929 and subsequent years. This tendency within the ranks of progressive education as represented by Parker, Dewey, and notably Kilpatrick, shaped its criticism around the contention that progressive education was too much concerned with projects unrelated to the actual economic and social conflicts of modern life. The critics held that the progressives were concentrating too much upon the rich cultural and intellectual development of the individual child, and upon mere flexibility or the capacity to adjust to a changing world. It was held that this eliminated from the educational program a proper consideration of the need for social security.

A prophet was found in George S. Counts, who insists that the progressives must give up their opposition to what they had called the indoctrination of social attitudes. This challenge has been most needed, because there has been too little realism in democratic educational theory. The latter has been bandying back and forth pet stereotypes such as "free intelligence," "creative mind," "the democratic way of life," "scientific method," until these terms have become clichés of a coterie. The followers of Dewey, heuristic rather than positive, formulative rather than definite, have feared any indication of "indoctrination" and "propagan-

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da," although both are most necessary in this organized world.²⁹

Counts' trenchant criticism of educational objectives and political irresponsibility in regard to the issues involved in "indoctrination,"³⁰ found its most definite and capable expression in the series of studies by the American Historical Association.³¹ Counts' theory is that we must be aware of our choices in framing our educational policy, and that by steadily making those choices we can influence the next generation in the desired direction. Teachers may thus participate in social change. In Counts' view, the desired direction is toward a vague sort of collectivism.

The services of the professional sociologists have already begun to be utilized by governmental agencies interested in the social aspects of education. William F. Ogburn headed the editorial board of Hoover's survey of social trends in the United States.³² The inquiry of the New York State Regents into the social value of the educational system was prepared from the sociological standpoint and method.³³ All in all, the whole idea of the use of democratic ideology for educational purposes and for social control will be of great importance in American educational thought in the near future, considering the extensive internal and international problems which our social system has to face. A definite attempt to relate our educational efforts to a more aggressive democratic ideology can be found in Brown, Hodges, and Roucek,³⁴ who approaching the international problems faced by America, have raised their voices in behalf of the strengthening of our international outlook by realism in international politics and by a more definite support of the democratic ideology. These writers continue a growing line of sociologists who have been pointing out the problem of "cultural lag" in our social life and education.

Vistas for the Future

The school has always been and always will be a source of social control. As a social institution, charged with the task of integrating all other educational forces, it is re-

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sponsible for forming certain social attitudes, habits, knowledges, ideals, and ideologies. Not until recently has it been realized that sociology is an indispensable subject for all forms of education. But already, under the impact of sociology, education, assigned the task of reconstructing American life through democratic processes, has begun to reform its fundamental theory and practice by admitting that the life of the school must be expanded to take in the whole community, by shifting the emphasis in educational thinking from the conventional bodies of knowledge to areas of democratic living, and by accepting the view that the so-called basic tools are best learned as they are used in meaningful situations.³⁵ How far sociology has influenced the professional American educators can be seen from the remarks of the specialists on curriculum:

The good life is social; individuals do not exist apart from society. The emphasis upon individual development must be transferred to the common life of which the individual is a part. The central problem of education, therefore, is the achievement of the good society. ³⁶

Our enthusiasm over the contributions of sociology to education must not, however, blind us to the fact that future integration of these two fields of human knowledge is not without its danger signals. The educator, as well as the pedagogue, is now confronted by an enormous amount of knowledge. A digestion, integration, and systematization of the available, accurate, and well-organized knowledge is an imperative task, which is simply baffling and, at the same time, cannot be avoided. Over 1,500 pages were needed merely to summarize the findings of the Committee on Social Trends, which was aware of the difficulty and suggested the possibility of establishing a permanent body for the discovery and interpretation of significant social data.³⁷ The need for taking definite steps in such a direction has also been suggested by a leading proponent of synthesization in the field of the social sciences, Pitirim Sorokin, for whom the manner in which scholarship in the social-science field may be improved consists in an essential modification of the fact-finding nature of contempo-

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rary social science in the direction of reinforcing the role of systematic—analytical and synthesizing—thought, as such. Its all-important role has to be reinstated. This means a swing in the direction of an analytical and synthesizing social science.³⁸

NOTES ON THE CHAPTER

1. Educational psychology found more favor with the editors and came off with three pages.

2. For the relationship of these terms to educational sociology, see: Joseph S. Roucek, "Some Contributions of Sociology to Education," in Harry Elmer Barnes, Howard Becker and Frances B. Becker, ed.'s *Contemporary Social Theory* (New York: D. Appleton-Century Company, 1940), pp. 793-835. We have summarized here the main points of this study by permission of D. Appleton-Century Company.

3. Harvey B. Snyder, *Sociology and Modern Education: A Study of Some Representative Textbooks in Educational Sociology* (M. A. thesis, University of Southern California); F. W. Schaper, *The Rise of Educational Sociology in the United States* (Ph. D. thesis, New York University, School of Education, 1932); Joseph S. Roucek, "The Essence of Educational Sociology," in Joseph S. Roucek, ed., *Sociological Foundations of Education* (New York: Thomas Y. Crowell Company, 1942), pp. 1-25.

4. C. C. Peters, *Foundations of Educational Sociology* (New York: The Macmillan Company, rev. ed., 1930), is a leading representative of this point of view.

5. For a survey of the various contributions, see: Joseph S. Roucek and associates, *Sociological Foundations of Education* (New York: Thomas Y. Crowell Company, 1942).

6. For the analysis of various theories, cf: Joseph S. Roucek, "Some Contributions of Sociology to Education," *ibid.*

7. Attributed in the writer's notes to an article by W. H. Harris in *Educational Review*, VI, p. 84. See also Harvey Lee, *The Status of Educational Sociology in Normal Schools, Teachers Colleges, Colleges and Universities* (New York: New York University Book Store, date unverifiable), p. 1; also E. C. Payne, "The Development of Educational Sociology in America and Its Present Status," *Sociologická Revue*, VII (1936), 367-376.

8. John Dewey, "My Pedagogic Creed," in A. W. Small, *The Demands of Sociology upon Pedagogy* (New York: Kellogg and Company, 1896). Notice the title of Small's work; today the title would in all probability be just the opposite — that is, "The Demands of Pedagogy upon Sociology."

9. David Snedden, "The Field of Educational Sociology," *Review of Educational Research*, VII (February, 1937), 5-14.

10. The most concrete attempt to define these goals has been made in: a report of the Committee on Social-Economic Goals of America, *Implications of Social-Economic Goals for Education* (Washington: National Education Association, 1937.)

11. See Samuel Chugerman, *Lester F. Ward, The American Aristotle* (Durham, N. C.: Duke University Press, 1939); Ward's *Dynamic Sociology* (New York: D. Appleton and Company, 1893), II, p. 568, should be studied.

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12. F. H. Giddings, *The Mighty Medicine* (New York: The Macmillan Company, 1928).
13. E. A. Ross, *Social Control* (New York: The Century Company, 1901).
14. C. H. Cooley, *Human Nature and the Social Order* (New York: Charles Scribner's Sons, 1902).
15. W. G. Sumner, *Folkways* (New York: The Century Company, 1906).
16. H. W. Zorbaugh, "Personality and Social Adjustment," in E. G. Payne, ed., *Readings in Educational Sociology* (New York: Prentice-Hall, 1932), I, p. 78.
17. G. H. Mead, *Mind, Self and Society* (Chicago: Chicago University Press, 1934).
18. W. I. Thomas, and Florian Znaniecki, *The Polish Peasant in Europe and America* (New York: Alfred A. Knopf, 1918), I, pp. 72-74.
19. Walter R. Smith, *An Introduction to Educational Sociology* (Boston: Houghton Mifflin Company, 1917); David Snedden, *A Digest of Educational Sociology* (New York: Columbia University Press, 1920).
20. Charles C. Peters, *Foundation of Educational Sociology* (New York: The Macmillan Company, 1930; first ed., 1924).
21. E. G. Payne, *Readings in Educational Sociology* (New York: Prentice-Hall, 1934).
22. Daniel H. Kulp, *Educational Sociology* (New York: Longmans, Green and Company, 1932).
23. L. A. Cook, *Community Backgrounds of Education* (New York: McGraw-Hill Book Company, 1938).
24. Joseph S. Roucek, ed., *Sociological Foundations of Education* (New York: Thomas Y. Crowell Company, 1942).
25. Willard Waller, *The Sociology of Teaching* (New York: John Wiley and Sons, 1932).
26. Cf. Joseph S. Roucek, "Ideology as a Means of Social Control," *The American Journal of Economics and Sociology*, III (October, 1943, 35-45); III (January, 1944) 179-192; III (April, 1944).
27. Karl Mannheim, *Ideology and Utopia* (New York: Harcourt, Brace and Company, 1936).
28. Vilfredo Pareto, *The Mind and Society* (New York: Harcourt, Brace and Company, 1935, 3 vols.).
29. Educational Policies Commission, *The Unique Function of Education in American Democracy* (Washington: National Education Association, 1937), is a good formulation of the nature, functions and ideals of education in the United States, free from the propagandist fervor of the "progressives," setting forth our changed cultural situation, the vast, relatively new accumulation of the social sciences, the dangers of control of education by minority groups, and the slow but clear emergence of fresh ideals of the independence of popular education. In this connection, it is necessary to consult Committee on Social-Economic Goals of America, *Implications of Social-Economic Goals for Education* (Washington: National Education Association, 1937), a definite attempt to build up a socio-educational ideology for American education.
30. G. S. Counts, *School and Society in Chicago* (New York: Harcourt, Brace and Company, 1928); *The American Road to Culture* (New York: John Day Company, 1930); *Dare the School Build a New Social Order?* (New York: John Day Company, 1931); etc.
31. *Report of the Commission on the Social Studies* (New York: Charles Scribner's Sons, 1934). See particularly: Counts, *The Social Foundations of Edu-*

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cation (1934); C. A. Beard, *The Nature of the Social Sciences* (1932); C. E. Merriam, *Civic Education in the United States* (1934).

32. *Recent Social Trends in the United States*. One volume edition (New York: McGraw-Hill Book Company, 1933).

33. See: Howard E. Wilson, *Education for Citizenship*; Samuel P. Capen and Luther Gulick, *Education for American Life*; F. W. Reeves, T. Fansler and C. O. House, *Adult Education*; Julius B. Maller, *School and Community*; Charles H. Judd, *Preparation of School Personnel*; Francis T. Spauling, *High School and Life* (New York: McGraw-Hill Book Company, 1935).

34. F. J. Brown, Charles Hodges and J. S. Roucek, *Contemporary World Politics* (New York: John Wiley and Company, 1939).

35. National Education Association, Department of Supervisors, Joint Committee on Curriculum, *The Changing Curriculum* (New York: D. Appleton-Century Company, 1937), p. 330.

36. *Ibid.*, p. 331.

37. President's Research Committee, *Recent Social Trends* (New York: McGraw-Hill Book Company, 1933).

38. Pitirim Sorokin, "Improvement of Scholarship in the Social Sciences," *Journal of Social Philosophy*, II (April, 1937).

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CHAPTER XXI

DEMOCRACY AND POST-WAR EDUCATION

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Social change is inevitable, if for no other reason than the constant shift of actors upon the world's stage. But degrees and kinds of change spring from complex patterns of factors: variations of climate, economic conditions, the personality of leaders, the spread of ideas, mechanisms, catastrophes, human aspiration, human greed, human suffering, human curiosity. In a period such as ours, just at the termination of a world conflict, two groups anticipating a "new era," are vociferous—the reformers and the reactionaries. It is a time when visionaries foresee utopias and ultra-conservatives apprehend disaster. Any attempt at appraisal of the ideational tides let loose in the world during the past ten years and their potentialities for good or evil will raise serious questioning. Only the ignorant and the wilfully blind can face the future with blithe equanimity. Yet in such an interval institutions and individuals with a modicum of foresight must take stock.

In ballistics we compute the trajectory with amazing accuracy, but our factors are all given us. Nature, though sometimes fickle, is also constant, if we take enough into account. However, in plotting the course of human events our knowledge of factors is dishearteningly vague. Perhaps, if we were able to "take enough into account," we might predict here also with accuracy. But no competent

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scholar today pretends to such knowledge. Does this mean, then, that the student of social affairs must confine himself to mere tabulation and classification? Troyer S. Anderson has answered:

If the social scientist wishes to devise a solution which will still be relevant by the time he gets it into operation he cannot think merely of the needs of today. He must anticipate the requirements of twenty years hence. Unless he does so his answers will always be "too little and too late" . . . Perhaps it is only fair that the social scientist should at last have to assume the risks of the business man. In reality he will have to assume far greater risks. The business man usually has pretty good control of the mechanism with which he implements his predictions. The social scientist, after he discovers what to do, must convince the public that it ought to accept his diagnosis. That, as you all know, is not an easy task. ¹

Several parallels can be drawn between the era upon which the United States is now entering and that when the foundations of the Republic were being laid down. We find ourselves the possessors of new and unused powers; we look out upon a greatly changed world; and we have tremendous new responsibilities, as did our forefathers. However, the conditions in the two situations are obviously different. The newly acquired powers deriving from American independence had to be focused in 1790 upon the self-preservation of the nation; upon the formulation of a method of operation and survival; and put into terms of a new vision of government by the people. To be sure, the circumstances of their existence during the preceding one hundred fifty years had given the people much preparation. They had the splendid heritage of English independence and the rugged conditioning of both Calvinism and the frontier. But though proposing to establish a new (and, as yet, weak) nation upon a new principle, they faced the responsibility squarely. Moreover, from among that small group of men appeared leaders of integrity, vision, and sheer ability whose equal as a group has perhaps never been found in our history. The documents they produced, the pamphlets, the state papers, and the letters

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they wrote were of so high an order that today they live among us as vigorously as in the day of their composition. They sought more than a multitude of regulations; they undertook to find and to formulate principles. The present and the next generation of Americans face the same kind of ordeal. As we move into a new world situation, a leadership must be developed in this country that is informed, that can both analyze and synthesize, that has moral courage, that has good sense in the field of human relationships, and that has a sensitiveness to values built upon familiarity with great human expression of the past. To produce it is no light labor, and nowhere does the responsibility fall so directly as upon American education.

The Sources of American Leadership

Attempts are sometimes made to draw up schemes indicating the origin and the duration of various social periods. A new stage of civilization is said to have followed the invention of writing, and still others the discovery of gunpowder, the steam-engine, or the printing press. Modern times are to be distinguished by "the invention of invention." Today these innovations are not merely sporadic or accidental. Their pursuit is a methodical, scientifically plotted pursuit. The atomic bomb, for example.

In normal times patents are registered at the rate of 50,000 a year—a half-million in ten years. While large percentages of these never materialize, the impact of the remainder upon society is tremendous. One such invention—the gas engine—has not merely provided new means of transportation; it has destroyed many railroad branch lines, turned farming into a business, blighted real estate areas close to business sections, developed suburbs, out-moded country government and one-room schools, and introduced many new categories of employment. Nor do its social effects stop at national borders. It has required a new kind of map—one to be used by airplanes flying across the North Pole—and, with the radio, has produced a new vulnerability and a new sense of membership in a world population. Professor Ogburn has said: "The in-

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ventor of the automobile has had more influence on society than the combined exploits of Napoleon, Genghis Khan, and Julius Caesar." And Waldemar Kaempffert remarks: "Every city is now a possible port of call for planes that may come from any part of the world." The same writer relates an experience of Dr. Charles Camsell, Deputy Minister of Natural Resources of Canada. Between 1899 and 1903 he traveled for three and a half years on foot and by canoe over 1400 miles of Arctic territory.

Thirty-five years later he covered the same route by airplane in ten flying days, stopping over night. On his first journey he discovered a tribe of Eskimos who had never seen a white man and who had no iron. Their lances were barbed with walrus ivory; their light came from open seal-oil with wicks of reed-piths; their knives were sharpened walrus tusks; their clothes were of skin sewn with caribou sinews. In a word, they lived in the stone age. On his second visit he found the men equipped with repeating rifles, out-board motors, sewing machines, and cameras, all transported by plane. Some of the women even wore corsets. ²

By the end of the nineteenth century, as a result of the abundance of its natural resources and the temper of its people, this country had assumed leadership of the world (though without consciousness of the consequences) in industrial development. Even preceding the recent war the United States produced and consumed more power, more machinery, and more petroleum than Russia, Germany, Great Britain, France, Italy, and Japan produced and consumed together. We produced and consumed almost as much coal, iron and steel, and chemicals as the group named and we produced more food than Russia. A war-time estimate pointed out that, while we have only six per cent of the world's population and only seven per cent of its land area, we would hold, at the war's end, eighty per cent of the world's gold, sixty per cent of its silver, sixty per cent of its war industries, sixty per cent of its peace industries, sixty-five per cent of the naval units, seventy per cent of the merchant marine, seventy-five per cent of the transport and commercial planes, sixty per cent of the fighting and bombing planes. Furthermore, it was said:

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Unlike the other powers, America's vast industrial plant will emerge from the war intact and undamaged by bombing. This means that the United States, which represents more than half of the industrial capacity of the world, will be ready to turn the might of its mass production technique immediately to the output of peacetime goods for foreign as well as domestic consumption. In contrast, all the other powers must not only repair their damaged factories but devote a major part of their energies to the reconstruction of their cities, transport facilities and farms, and to the relief of their war-weary populations.³

Until yesterday, a nation's power was reckoned on the basis of its ability to carry on industrialized warfare. The United States is now supreme in this field. But other factors add to this supremacy. Eighty-five per cent of the land areas of the earth are located north of the equator. The United States lies in the midst of the great land mass of the northern hemisphere, yet protected by the lands of weak powers to the south and the north, and by two oceans. At the same time, it is the only great power facing both Atlantic and Pacific oceans, with the access they give to Europe and the Orient. As in the case of Russia or China, its invasion would always involve vast distances and extent of territory. With respect to geographic position on the globe, development of natural resources, and industrial advancement, it is for the present unrivaled. It stands like a great ship in a crowded harbor. Its location and every movement must be kept under constant observation by all other craft, and it, in turn, must exercise the greatest care in its every maneuver. Furthermore, the political and economic waters in which we must operate from now on *will always be congested*. From our present point of view it is impossible to foresee a time when we may ever again escape to great global spaces and live our national life in splendid solitude. We have grown too large, and the globe has grown too small.

National Problems and Education

The assumption is made here that we educate for the future. Certainly every child must be treated as living in

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the present, enjoying the present, and subject to immediate needs. Certainly we shall not return to the absurdities of European education in the eighteenth century. But every time we undertake to develop strong physiques, capacities for appreciation or for problem-solving, or habits of industry, we assume their future use by the individuals concerned. Similarly it is high time we think of their social future.

Men are fond of calling the present the "end of an era." Nations do not often pass through times as momentous as these. Circumstances and ideas have both played parts in bringing them upon us; circumstances and ideas will both play parts in the aftermath. No adequate conception of German totalitarianism can be obtained without acquaintance with the ideas of Hegel, Schopenhauer, Nietzsche, Wagner, Toennies, and Spengler, as well as the traditions of Prussian junkerism and the economic pressures of 1933. And no prognosis of social trends in the making can be attempted without canvassing the ideas that dominate our time. Here we confront not only a bristling array of new political, economic, and social conditions, but also our own local and national pre-war problems, in some cases aggravated rather than diminished by recent crises.

Three significant areas of social conflict in the United States are cited here, as introductory to the educational problems of the post-war period.

First:

Recently a Boston newspaper published a letter from an American soldier on active service. He is of foreign ancestry, as all but a half-million Americans are, and his name is foreign, as all American names are except those which are rendered in our alien tongue as Crazy Horse, Sitting Bull, or something similar. The soldier wrote that his brother had been beaten up in Boston under suspicion of being a Jew. He wished, he said, that he could get a furlough so that he could come back to Boston and repay that assault on the toughs who made it. He had supposed that the principal reason for creating the Army he belonged to had been to protect America against the possibility of such things happening here. Now that this had happened to his

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own brother, in his own home town, he was wondering just why he was in the Army . . .

We are having trouble of that kind in Boston and its suburbs, as elsewhere in the United States. We are having more of it than those responsible for public policy have thought it proper for you to know about. ⁴

It is becoming clear to more and more people that local race issues have international repercussions. Race, ancestry, color of skin, and hereditary custom are to be of increasingly sensitive nature as subjects of discussion for all men and women who have savored the essence of democracy. In our own country, Negroes, Jews, southwestern Spanish-Americans, Indians, and other minority groups have participated in varying degrees in American democratic processes. And nearly all have felt the effects of American education. Attitudes and resentments slowly built up through one or more generations have had sudden release in the recent war. The South has been full of Army camps, containing white and colored troops from both sides of the Mason and Dixon line. Local folkways have been misunderstood and flouted. Younger generations of majority and minority groups sharing the hardships of combat have discovered new perspectives. World travel, observation of the abuses of other subservient peoples, and contact with sufferings under dictatorships may result in deep determination to break old bonds at home. Again, for the first time in a generation, groups economically submerged because of their race, have traveled about the country, received big wages, and tasted heady drafts of something—for them—close to luxury. The race problem in the United States would seem to be moving, just as before 1860 it was moving, toward some sort of crisis.

Second:

The Conference was first and foremost a war conference . . . Its objectives and its programme are based on the conception of an expanding economy directed towards the raising of standards of life and of work for the people of all lands. . . .

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So far as the social objectives are concerned, their chief characteristic is their unquestioning acceptance of the principle that the promotion of material and spiritual well-being "in conditions of freedom and dignity, of economic security and equal opportunity" must constitute the central aim of national and international policy . . . The 1944 Conference marks the formal declaration that the attainment of social justice must be the dominant consideration in the post-war world, that all other goals become subordinate to this, and that policies in all fields of national and international life must be judged primarily in relation to this objective. . . .

It is a shift of emphasis which can exert the most striking influence on the formulation of post-war policy in every field. In the economic field, for example, its application implies a complete repudiation of restrictionist policies of all kinds. *It involves a fundamental redirection and reorganization of the world's machinery of production and distribution.* ⁵ World economic organization designed to serve human need will be very different from the pre-war structure which served a variety of often conflicting ends, among which the factor of human need was often forced far into the background. ⁶

The "shift of emphasis" here described is one that finds consideration among many thinkers and many groups. There is probably little basic disagreement among these as to the ideals of freedom, dignity, security, and opportunity here set down. As to the ways of attaining them there is serious difference of opinion. Further, some will accept, some will reject "the conception of an expanding economy." Both business and labor—often uncritically—tend to accept it. Business journalists like Garet Garrett with his "alchemic technology," and even a literary critic like Bernard DeVoto applaud it. But there are students of affairs who do not—Lewis Mumford and John U. Nef, for example. Most plans remodeling our civilization, says Mumford, ignore a great secular change in Western civilization during the past century—"the end of the Era of Expansion," which had three interacting phases; namely, land expansion, population expansion, and industrial expansion. Now we enter an age of equilibrium, the achievement of which is to be the task of the next few centuries. According to Professor Nef:

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In all probability the heroic period of expanding industrial output is over. Whether we look at natural resources, at statistics of population growth, or at the conditions governing demand, we are led to the conclusion that, after five centuries of more or less continuous increase in the rate of industrial expansion, the Western peoples are entering an age in which the rate is almost certain to diminish. The chances are that in the decades which lie ahead the volume of industrial output among the Western nations will increase very much more slowly than during the nineteenth century. ⁷

Whichever prophecy proves correct, the welfare of the locality will be profoundly affected by world-trends.

Third:

The experience of history supports the conclusion that power can endure only if it gives and maintains laws within which men enjoy the liberties they regard as more important than life . . . The East and the West have been formed in widely different cultural traditions. But what can prevail everywhere, if the alliance holds together, is the universal law that force must not be arbitrary. . . . ⁸

The permanently successful administration of law depends upon the dispensation of justice. Any world order that may be contrived, though it depend ultimately upon appeal to force, must function as a moral order. If out of the recent struggle a conviction, to be vital for many generations, that violence and raw power and conquest do not lead to permanent national "success" shall have been evolved, the world of the future will be deeply in our debt. Nor can any nation ignore the potency of one or more men among its citizens as possibly affecting the lives of all mankind. We are learning this, as Robert Briffault has pointed out, not through the sharpening of our intelligence, but through "the insistent hammering of hard facts." Technology, industry, and economics must henceforth be immediate and constant concerns of every government, with a view to the prevalence of human justice. The implications of this for education are profound.

One of the encouraging signs of the times is that men

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on both sides of the controversy as to economic trends (cited above) agree that the moral element cannot be left out of consideration. Garet Garrett would remind us: "So we are every one members of one another." Eric A. Johnston was quoted as saying just previously to his Russian trip: "At no time have moral and spiritual values weighed so heavily in the scales of human destiny." John U. Nef concluded the chapter quoted from above with:

The hope of the Western peoples would seem to lie in the recognition that their riches, their leisure, and their health have been purchased in recent years at an increasingly heavy price in intelligence, in the sense of individual responsibility, and in the general love of mankind. Has not the time come to redress the balance? ⁹

And Mumford has put it still more trenchantly:

The theme for the new period will be neither arms and the man nor machines and the man: its theme will be the resurgence of life, the displacement of the mechanical by the organic, and the re-establishment of the person as the ultimate term of all human effort. Cultivation, humanization, co-operation, symbiosis: these are the watchwords of the new world-enveloping culture. ¹⁰

Prerequisites of Leadership

When Harvard College was founded in 1636 the handful of men and women who constituted the American colonies had no question as to their mission. When Thomas Jefferson penned his proposal for an educational system in Virginia in 1779, when in 1786 he wrote George Wythe, "I think by far the most important bill in our whole code is that for the diffusion of knowledge among the people," and when later he worked indefatigably for the establishment of both elementary and higher education, the American people were aware that huge national tasks confronted them. And when Horace Mann, Henry Barnard and other reformers laid the broader foundations of our public education, the task of continental conquest was sensed in all levels of the populace. A similar sense of urgency is

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apparent today among the Russian people; it began to make itself felt among the Chinese before their present war fatigue crept upon them, and it may well manifest itself among the French, once they are in a position to build the structure and culture of a restored republic. But such a drive has been lacking among our people for fifty years.

During that period we have been forced into various kinds of adjustments. As is natural, large proportions of our population have been unable to escape the urges and objectives operative for three hundred years. And yet, it must be observed, the last fifty years, with their progress toward American dominance of world finance, industry, and technology, has seen a standard of material comfort unknown in the world before. The results have not been altogether salutary. We have been prone to accept the profit of our leadership without its moral and cultural responsibilities. It is not reassuring to find the results of a survey of ex-university people reading:

. . . the goal and life satisfactions that most of them had set for themselves were self-centered, focused chiefly on a desire for security and happiness at home and on the job.¹¹

Perhaps, as Professor Kandel has put it, in our pursuit of democracy and in our teachings regarding it, we have been too intent upon rights, not sufficiently conscious of duties. Just as progressive education and liberal education call for knowledge, judgment, and teaching of higher order than that of the ordinary drillmaster, so the transmission of the principles of democracy to the world will demand information, skill, and sympathy we in the United States have not exhibited. Power is no guarantee of permanence. Its corrupting influence upon men and nations has been remarked since the beginnings of recorded history. Those men who have held great power and have remained uncorrupted are towering figures in our human annals; to some we have ascribed even the qualities of divinity.

As a nation we are provincial. Within our own borders we are sectionally-minded to the point that we are surprised—sometimes angered—when representatives in Con-

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gress approach legislation from a national point of view. To move out into a position where we consciously assume our share of responsibility for world trends (together with the cares, the vexations, and the difficult decisions inevitably following) will be a policy unacceptable not only to the timid, but also to the selfish. It will be fought long and bitterly. Its general acceptance may have to await further demonstration that failure to assume leadership means further suffering for us. Education has opportunity to teach both the realistic and the idealistic approaches to this problem.

Applications in Education

The specific role or roles of education in relation to post-war citizenship will be discussed under three general headings: attitudes, subject-matter, and administration. Under the first of these, at least four problems challenge us in relation to: (1) motivation, (2) creativeness, (3) liberalism, and (4) social responsibility.

Attitudes. (1) With increasingly greater attendance in the upper levels of American education during the last forty years, and the consequent greater range in student ability, the problem of motivation has become more and more acute. This has resulted rather generally in the award of a high school diploma to any young person who has gone through the "course," even though of the most mediocre capacities, provided only that he has not been flagrantly lax in attendance. It has resulted in the introduction of many "practical" or non-academic subjects. And it has resulted in the "progressive movement" within education, with its first emphases upon the freedom, the activity, and the interests of the individual. Some of this has been valuable; some of it has been an almost inevitable outcome of conditions imposed upon administrative officers, but many abuses have crept in. Larger and larger numbers of students have been permitted to choose a large proportion of utterly unrelated small units of subject-matter and non-academic "skills." The greatest sufferer, of course, is the bright student, the potential intellectual leader. In progressive edu-

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cation, activity has sometimes been interpreted as meaning only physical activity, and the idea of freedom has been invoked—though certainly without the sanction of the older leaders in the movement—as justifying a kind of release from educational discipline and the sense of obligation amounting almost to license. Again it is the bright student who suffers most. He has not learned the power of application and the satisfaction that may come from sustained endeavor, not to mention the mastery of fundamentals of subject-matter essential to any advanced training. “Freedom” and “interests” without intellectual and moral discipline result in the pursuit of mere egocentric vagaries.

It is only as we have observed the war’s motivating effect on the Army and Navy groups in colleges that we realize how sadly deficient many of our other students have been in goals and drives. To be sure, every military man knows that his future survival may depend upon the mastery of material placed before him. But his honor is also involved, and this not merely in terms of personal rivalry. His failure would involve not only his immediate group, but also, however vaguely, his country—though the slackening of this kind of motivation became evident as the tension of national crisis eased. Following the war, we shall fall into the old, too widely prevalent lassitude, unless our populace and its young people catch a glimpse of personal and national opportunities and obligations (they can never be separated) in a socially changed world.

(2) Our new role calls for an expanding creativeness. The American people have been conditioned by a long period of pioneering to situations calling for certain types of initiative. This will stand us in good stead in some of the work ahead. Climate, distance, and geography do not daunt us. The recent war has demonstrated our ready ability in invention and improvisation, and our daring in the face of physical hazards. But we shall have to make new applications of these qualities socially and culturally. Doctrines of democracy are difficult to define, often lead to serious complications in their administration. We have

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bad little experience in dealing as a people with other peoples. On several counts we have not developed to a world stature. Thus we are now entering a post-war world with leadership thrust upon us because of some phases of our development, but without preparation for that leadership.

Progressive education has done well in its emphasis upon creativeness, but has suffered at the hands of poorly prepared, inexperienced and naive teachers. (When shall we learn that both progressive education and liberal education call for teaching of the highest level?) All children, let us agree, are creative, but few become creators. The road between the first creative impulse and final achievement is long and devious. The word "career" implies progressive improvement, and improvement implies mastery. This mastery extends in two directions; first toward the materials, fields, and techniques in which the individual will work; second toward human relationships and applications. Francis Galton pointed out nearly a hundred years ago that outstanding achievement calls for at least three traits: intellectual ability, power of application and "zeal," or drive. Two of these are definitely subject to development or modification by education.

Subject-matter and activities must serve as media through which the student works, but to become an efficient student and later an efficient human being he must acquire both power of application and drive. A tragic outcome in American education at the present time is the lack of such capacities. Guidance and advisory officials in colleges the country over will testify to the startlingly large number of intellectually capable young people without them. Such people are equipped neither with habits necessary for intensive study nor with the information—"tool subject-matter"—required for advanced work. Army methods should teach teachers that plain drill and memory work can never be eliminated from the process of mastery—though they should also teach something about other methods. The creator has his facts at his finger-tips; he knows the material he works with. His general powers

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of observation have been trained and sharpened, to be sure, but within certain areas he is able to detect phenomena and to read relationships which the uninformed mind can not discover or follow. At the same time he marks immediately that which is unusual. Charles Darwin's son, speaking of his father, said, "The power of never letting exceptions pass unnoticed seemed to be of special and extreme advantage in leading him to make discoveries."

In addition, the creative mind is imaginative. As Dewey, in his analysis of a complete act of reflective thought, has said of suggestion, "... it is more or less speculative, adventurous. Since inference goes beyond what is actually present, it involves a leap, a jump, the propriety of which cannot be absolutely warranted in advance, no matter what precautions be taken." The true creator has in his make-up a measure of daring, within the limits of good judgment. And all these traits found important in the treatment of his materials must apply in equal measure to his dealing with human values involved in his creations. Achievement is great or valuable to the degree that at some time it affects humanity favorably. Thus creativeness is implied as an outcome of all liberal education with its three emphases upon knowledge, critical and constructive thinking, and sound appraisal of human values.

(3) Elsewhere the writer has defined the elements of liberalism thus:

First, it will assume an attitude of tolerance toward both the old and the new, the tried and the untried, and this attitude removes liberalism from the category of radicalism, which in order to effect its ends often becomes intolerant. Second, its avenue of progress will be by way of free human thought and expression. To keep such an avenue open liberalism must sometimes assume the defensive, sometimes the offensive; hence liberalism calls for moral courage. Third, its instrument or compass is critical intelligence. True liberalism is never sentimental; its approach to problems is rational or intellectual. On the other hand, it will not seek to invalidate artistic or "spiritual" insight, but it will appraise the idea at the core of that vision. Finally, the goal or objective of the liberal is synthesis. The liberal is not passive; he is actively engaged in a search for new

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value that may be tied to the old, from which union may spring a new creation. He is constructively and creatively concerned with all social phenomena. ¹²

Opposed to this attitude is one that may be called literalism. Its nature has been summarized as follows:

First, the literalist by the very nature of his position cannot avoid intolerance. Second, the avenue he follows is one of regimentation; every man subscribes or suffers the consequences. Third, literalism uses as its instrument a greater or lesser degree of fanaticism, as opposed to the critical intelligence of liberalism. The fanatic is critical about one basic tenet only—the failure to conform to *his* authority. And fourth, the outcome of literalism is dogma. Liberalism calls for new synthesis in a changing world; literalism knows only one authority and one word. Truth is always open to question, welcomes complete investigation. Dogma resents any attitude other than that of complete and unquestioning acceptance. Thus the literalist easily becomes the bigot. ¹³

Democracy and liberalism go hand in hand. We have always had, will always have, our Tories; nevertheless, our success as a nation bears close relation to an ability to break with old concepts and adopt new ones. American education must contain a large measure of this concomitant for the sake of national mental health, but this will be especially true when the decisions of our people, as democracy, have increasingly important world-wide repercussions.

American education must promote liberalism through subject matter, through policy toward those faculty members who are regarded by some good citizens as radicals, and through administrative procedures. It has a long way to go. Nationally, we have rested upon our self-sufficiency, naively indifferent to the ugly implications of our race-riots, our slums, our urban corruption, our Huey Longs and Frank Hagues. Educational leaders have not always had the courage to attack these things nor to defend those within their own ranks who have attacked them. Moreover, there are too few institutions of higher learning and

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still fewer public school systems in which faculty members participate in the formulation of policies. American public education has apparently become enamored of the pattern of control in corporate business, with its board of directors and its executive officer. In such a pattern teachers are the "hired men" and the "hired women." Classroom work may become only "benchwork," the lowly routine performed by the lowest level of employee; while the mere holding of supervisory and administrative jobs may be taken as evidence of superiority. This vicious kind of thinking, if persisted in, undermines scholarship. Its vogue is more prevalent than most of us care to admit.

(4) One of the penalties of expansion such as the United States experienced in the nineteenth century is the result of an absence of the restraints imposed upon life in more crowded communities. Frontier conditions do not develop a sense of social responsibility. Many of the ills of American society can be directly traced to that very individualism which has been the source of many of our virtues. But the world of the future will be crowded. It is probable that the majority of the younger generation today has more adeptness in community living than the majority of older people. (Though this does not imply, as many seem to assume, that extroversion is a virtue and introversion an abnormality.) At the same time, some of this same group are almost reactionary in their attitude toward international affairs. The social sciences at both secondary and college levels cannot escape the task of inculcating those attitudes of social responsibility which are as vital to the future functioning of this country as is the possession of facts.

Subject-matter. No formal educational program can be carried on without subject-matter. Yet its abuse is so prevalent and reference to it so easily misapplied that one must approach its treatment with some reluctance.

It is obvious for the theme here being developed that broad and fundamental education is implied for any and all proposals. But the theme of world leadership also implies specific emphases in student preparation. Certainly

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that man or woman who aspires to participation in such a program on foreign soil needs special training, and to the degree that all citizens are to be affected by a changing order of world relationships the content of American education will be modified. Four areas may be considered: (1) American thought and culture, (2) world thought and culture, (3) "tool-subjects," and (4) fields of specialization.

(1) Knowledge of American thought and culture is something quite different from a smattering of American history sometimes comprehended in such items as the dates of the American Revolution, the names of a half-dozen generals, and the fact that Theodore Roosevelt initiated the project of the Panama Canal. Resulting from the work of the Beards, Turner, Commons, Parrington, Schlesinger, and many others, significant analyses of American life and thought have found their way into textual material even at the secondary level. All the technological influences making for the shortening of world distances are operative with added power in our own country, so that the phrase, "American culture," will grow rather than diminish in definiteness. In order that the United States may function most effectively in a future world, the American must know and be able to define much more clearly than at present the meaning and significance of American life.

(2) In similar fashion we need to approach the cultures of other peoples. Information in factual form will be highly essential, but not enough. The point has been well taken that teaching relative to these cultures can best be done by people who have known them at first hand.

It is those actual contacts which give one that intangible "feel" of another people which enables him to interpret the hundreds and thousands of items of behavior and culture liable to be misunderstood by the foreigner who is unable to supplement historical, descriptive and statistical data with a realistic context of experience within which he can view such items. ¹⁴

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In the past we have not paid much heed to material of this kind nor to the experience of thousands of Americans who have lived in other parts of the world and who have potential teaching talent. In the future, attention to this field will become progressively more essential. To anticipate the need is more than good foresight; it is sound educational statesmanship.

(3) One of the most discussed among the various innovations of war training was the intensive language program. Extravagant claims were made for it and extravagant expectations were built up among some sections of the public. Most educators are beginning to see the matter in true perspective. Without question, more American college students will need and want to acquire oral mastery of one or more foreign languages. Such a need will call for modification of present teaching methods for a certain proportion of both high school and college students—many more hours of intensive drill upon the spoken word. On the other hand, for the average student, probably more emphasis than at present should be placed upon an insight into various cultures through language study. In any case, until the advent of an efficient and widely-accepted international language, foreign languages are destined to achieve new practical importance in American education, and real insight into the mores of other people will always require the background of familiarity with their languages.

Special emphasis will likewise be demanded upon geography, history, government, and economic resources, varying, like language study, with the interests and opportunities of students. All of these materials, however, may be regarded as "tool-subjects"; no person can be regarded as equipped for extensive foreign contacts without such backgrounds. In addition, he will require specialized training.

(4) There will be some demand for teachers of English, with knowledge of American literature; for teachers of American history and culture, and for teachers familiar with American educational methods; but the greatest and most numerous opportunities will undoubtedly appear in those fields where the United States has taken world lead-

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ership—in science, technology, and industry. Transportation and communication will perhaps exert greatest appeal for the adventurous. Meteorology and other sciences accessory to aviation and radio and some of their specific techniques will rise in importance among educational offerings. Public health and all its sciences will offer challenge of another sort. Knowledge of American techniques of industrial production, distribution and advertising will be sought (though in the field last named we will be more self-critical before we teach our methods); and American mechanized agriculture will continue to be copied in some parts of the world, at least. Finally, extension of such activities on the part of our citizens means increased opportunity in government service. It is not difficult to see that within the next fifty years—the period of activity for that generation now ready for its secondary and college training—developments of a deep and permanent nature are likely to affect all educational thinking.

Administration. Reference has already been made to the need for reform in our own patterns of educational administration. As we undertake educational projects intended to promote international liberalism and the interchange of ideas it will be well to scan critically those systems and attitudes with which we are in daily contact. We in education probably have as much room for improvement of basic practices as our contemporaries in the fields of business and government. At the same time, beginnings toward international organization in education should be heartily supported by the entire profession.

The World Federation of Education Associations has been active since 1923 and has held nine biennial conferences in eight different countries, besides promoting regional conferences and an Institute on World Problems. The general office of this organization serves as a clearing house for information relative to world educational events, new educational methods and principles, the compilation of directories, promotion of exchanges of teachers, of students, and of exhibits, and for arrangement of trips by groups of teachers among different countries during the summer. It serves also as an instrument for the

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promotion of international understanding through the publication of its monthly magazine *World Education*, in several languages, the publication of pamphlets giving information regarding different countries, to be distributed through the schools, in helping restore educational facilities in war-ravaged countries, and by numerous other methods.

As early as 1921 the Council and the Assembly of the League of Nations engaged in discussions as to the responsibilities of the League relative to educational matters. Out of them emerged the International Committee on Intellectual Cooperation and the International Institute of Intellectual Cooperation in Paris. However, no very outstanding achievement in this field can be attributed to the League.

In September, 1934, an International Education Assembly met at Harper's Ferry. In April, 1944, at a meeting of allied ministers of education in London, steps were taken to draft a constitution for an international organization for educational and cultural reconstruction. This became the basis for what is now a permanent body under the charter of the United Nations Organization—the United Nations Educational, Scientific, and Cultural Organization. Walter M. Kotschnig, in a memorandum to the American Council on Education has recommended five broad functions for such a body, acting as follows: (1) a center of consultation, a "meeting ground" for educational and cultural leaders, (2) a center of information, (3) a research center, (4) a bureau of standards, working for minimum standards in education and against the prostitution of education for disruption of good international relations, and (5) an administrative center.¹⁵

In a joint report of the Liaison Committee for International Education (which convened the Harper's Ferry meetings) and the International Education Assembly, cooperation of educators in all the United Nations is urged through a series of definite and significant projects, as follows:

1. Examining the curriculum to determine how the development of world citizenship may permeate the teaching of

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all subjects, and eliminating the content and materials which foster intolerance, prejudice, and war among the peoples of the world.

2. Providing for the broadest study and teaching of the humanities (philosophy, ethics, history, literature, and the arts) as a means of developing human relationships and international understanding and of stabilizing basic values.

3. Developing an understanding of the effects of the physical environment on culture, of the effects of culture on human personality, the distribution of world resources and population, the lanes of world transportation and communication, and the growing interdependence of the modern world.

4. Providing for the careful study of modern technology and economy upon which world interdependence rests and adequate standards of living for all depend.

5. Studying the development of culture to show the growing unity of the world, and man's long struggle for peace and security.

6. Studying the great religious teachings and faiths of the world to show man's common aspirations and spiritual ideals, and to help develop a personal philosophy of living.

7. Teaching the scientific method of solving problems and developing the spirit of science which contributes to human betterment to the degree that it is free from narrow nationalistic and closed cultural relations.

8. Preparing instructional materials to support the proposed changes in content. In certain areas, common reference materials used throughout the world are desirable.

9. Providing for a wider use of the newspaper, periodical, pamphlet, radio, motion picture, library, art galleries, museums, *etcetera*, on all levels of instruction: child, youth, and adult. Radio programs for world transmission, and motion pictures and newspapers for world distribution are desirable.

10. Selecting an international language and encouraging the teaching of it wherever feasible in elementary and secondary schools in order to foster world intercommunication and understanding. This language can be employed in certain reading materials, radio programs, periodicals, and motion pictures in order to ensure its continual use. More effective methods of language instruction should be used and the study of languages generally encouraged.

11. Developing and using methods of instruction which will facilitate effectiveness in world citizenship, such as international correspondence among students.

12. Providing for a very substantial increase in the inter-

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national interchange of students and teachers, planned and managed so as to obtain the maximum value from such experiences.

13. Providing international institutes and increasing the number of centers of learning where teachers from different nations can study world problems and cultures under competent instructors.

14. Providing a translation service for old and new materials for educational use in various countries.¹⁶

Conclusion

An analogy was drawn in the early part of this chapter between the problems of the present and those that faced the founders of the Government of the United States. It is hoped that evidence of the aptness of this analogy has emerged in the material presented here. Probably no more fatal attitude toward American life and education could be developed than one which would take for granted the possibility of our withdrawal from tremendously important new international activities. Our forefathers felt that for the sake of posterity they could not shirk their responsibilities. Neither can we.

For as surely as the earth turns, force and violence shall be the law; and wars of cataclysmic destruction shall be the penalty; and blood and tears shall be the inheritance of that people who neglect to learn and to teach that the earth has grown smaller, that all men on it are fundamentally alike, that no human being need now lack food or shelter, and that science has made it necessary for men to live at peace if they want to live at all.¹⁷

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PART V

THE SCHOOL AND ITS PROBLEMS

CHAPTER XXII

EARLY CHILDHOOD EDUCATION

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In all countries and in all periods of history, the education of young children has taken place, whether organized or not. Young children learn by virtue of the fact that they *are* children, and somehow, between the time they first see the light of day and the period known as adulthood, they acquire a tremendous amount of knowledge and develop many abilities through vicarious as well as personal experiences.

Few nations have left this early training to chance, but the education of the youngest citizens has assumed greater significance in recent years than in all the centuries that have gone before. Our own age is a far cry from the period in which an influential author could write in all sincerity:

I wish that some discreet person would give us a treatise on the art of observing children, an art which would be of immense value to us, but of which our fathers and school masters have not as yet learned the rudiments. ¹

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The writer was Rousseau and the country was France, but the time was only three years after the marriage of our own George and Martha Washington. And significantly enough, the first President of the United States was never personally confronted with the problems of early childhood education since he had no sons or daughters of his own. Thousands of other Americans, however, have been brought sharply face to face with the question of child care and development, by their entry into the role of parenthood during the years our nation has been making its record as the longest existing democracy in the modern world.

True, the nurture and guidance of the baby and toddler in our own country has, until well past the turn of the century, been left largely to the home. However, parents of growing children in America have more help at their command, today, than in any previous time. Clinics, child care centers, nursery education centers, kindergartens, institutes and child consultants, as well as countless periodicals, publications and records of findings from careful studies at research centers—these and many other forms of helpful counsel have been made available to the general public in communities where their existence was never heard of before the second quarter of the twentieth century. Much remains to be done in this direction. Even so, American parents have at their command facilities not even dreamed possible by previous generations. The problem is not merely one of making more facilities available, or even of bringing existing facilities up to minimum standards and specifications, but also a question of helping parents to understand "what it is all about."

Many of those responsible for the rearing of young children, either by preference or through force of circumstances, "stumble through" on intuition and the desire to do either exactly as their own parents did with them, or just the opposite, in the management of their children. Some persons are thought to be highly successful, and others are considered miserable failures, depending on whether or not the children become worthy members of society, in due time. The child himself is seldom given

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credit for succeeding in spite of the early training or parental imprint to which he was subjected in his most formative years. That early impressions make permanent inroads on character is no longer a matter of theory, but a proven fact. However, a more startling truth has also been verified by the many studies in the field of early childhood, namely: the existence of remarkable and intricate potentialities for learning within human nature itself, as found even in the earliest years of the child's life.

Society has an educational responsibility toward its oncoming members. This responsibility is not one of molding each to a certain form or pattern, nor even of putting him through various exercises and drills intended to strengthen given abilities. The education of the young child is a matter of providing an adequate environment to which he may respond with all his innate curiosity and eagerness to learn; it is also one of providing adequate guidance whereby this learning may be made continuous and meaningful. The modern school of early childhood attempts to do exactly this for the younger members of American society.

The first organized kindergarten in the world was established in Europe in 1837, just five years before Abraham Lincoln's wedding day. However, the future emancipator was in the midst of the early childhood problems of his own little brood when a kindergarten was first set up in America. This was in 1855, at Watertown, Wisconsin. By the year 1876, when Lincoln's first born had reached the age of thirty-three (the same year that Americans were "oh-ing" and "ah-ing" over Alexander Graham Bell's latest invention called the telephone), crowds were also curiously eyeing a demonstration kindergarten, conducted in connection with the Philadelphia Exposition. There were then no prophets wise enough to foresee the phenomenal development of both telephone and kindergarten in America. Prior to this by three years, St. Louis had the first kindergarten to be established in the public schools of the United States. Centers for the training of teachers went hand in hand with the spread of kindergartens to other sections of the country. From these humble begin-

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nings has grown what has come to be known as the school of early childhood, while the business of teaching the younger children of our nation has developed into a profession worthy of specialized teacher education.

Increasing Knowledge of the Way Young Children Grow, Act, and Learn

Early childhood is a common bond of all ages and of all peoples. Every adult, before he becomes such, passes through the stages of infancy and childhood. At the beginning of the Christian era it was said, "The poor ye have always with you." This statement, though intended to illustrate another point, might be made to apply with equal verity to childhood itself, which is ever present. The young child we have always with us! In another age and country, Tennyson recognized the perpetual existence of the brook through all the comings and goings of a nation. He might equally well have personified early childhood, and made it say, even as his river,

Men may come, and men may go,
But I go on, forever.

For generations, adults were content to believe that "Children should be seen and not heard," yet they failed to go to the trouble of actually seeing children as they really are. Only in comparatively recent years have consistent studies been made of the characteristics of children, as such. Froebel founded his own school, the first kindergarten in the world, not quite a century before the study of children had become a matter to reckon with in the planning of any educational venture where young children were concerned. Froebel, known as the father of kindergartens, was able to put into practice many of his educational theories about young children. By means of games and directed activities, they were supposed to re-enact in symbolism the basic philosophy of life. Froebel's school was set up in 1837, and with it came an active recognition that the younger children were worthy of educational consideration in a school of their own. However, it was left

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for an American professor, Dr. G. Stanley Hall, to begin the scientific study of child nature.

Dr. Hall was active professionally over a period of more than five decades. His most influential works were published during the ten years previous to his death in 1924. Once started, the idea of studying children grew. Many investigators since then have been observing the child himself in every conceivable situation in order to gain information and knowledge concerning his growth and behavior.

Running through all these studies, as a thread holding them together, is the verification of the consistency of human development. Although each individual child is a unique personality, it becomes increasingly clear that all children possess common tendencies to respond and to grow in similar ways at given levels of maturity. The same stage of development, however, is not reached in any predetermined length of time by different individuals. Some grow at a much faster rate than others—mentally, socially and emotionally, as well as physically.

Determining factors in growth are not only hereditary or inborn tendencies, but also differences in nutrition, surroundings, experiences, and guidance. Of equal significance are such matters as the family life of which the child is (or is not) a part, his relationships to the people whom he contacts, the ways his associates behave toward him, the opportunities he has to investigate and explore. These and many other factors are so varied from child to child that it has become a basic principle of the early childhood, that chronological age is far less significant than stages of development, in comparing one child with another, educationally.

Importance of Materials and Equipment; Influence of Environment

It is a significant fact that the growing child has a decided tendency to learn by investigating, exploring, and manipulating whatever is in his immediate surroundings.

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His learning depends upon his physical environment as well as his social contacts.

Physical environment defined. The building and accessible outdoor space, as well as the objects, materials, furniture and equipment, both indoors and out, are all considered a part of the physical environment of the young child. The location of the rooms in the building, the arrangement of fixtures, furniture, cupboards, wall space, doors, windows, chairs and tables all contribute to the impression made by what are commonly known as environmental influences.

In situations where a new school plant is to be constructed from blueprints it is important that they be checked carefully from an educational viewpoint by someone especially well versed in the principles of early childhood education. When a building program is not possible, much can be done in skillful rearrangement of furniture and equipment within available space. It is wise to have adequate lavatory facilities conveniently located. In cases where the lavatories are not immediately adjoining the early childhood rooms, it is a good plan to have sinks or hand basins with running water installed in the immediate environment.

Every piece of equipment and furniture, every allotment or raw material, toy and object, garden plant or animal, tool or picture, introduced into the physical environment of the school of early childhood is carefully selected with a view to the type of development it will foster in the children.

Toys and raw materials that encourage active participation. The studies of children show that much more learning takes place when Johnny and Alice participate actively than when they play the part of passive onlooker. That may be one reason why the mechanical train which runs by itself has more educational value for "Daddy," perhaps, than it has for young son, Johnny. The latter will gain much more from supplying his own power to a model which he must push around and "toot" with his own lips. The uninitiated adult usually fails to consider the devel-

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opment or growth that will take place in the child for whom he selects a toy. Invariably he will choose the toy which to his adult taste seems most appealing. How could such a one censure Johnny for picking out a kiddy kar to give to Daddy at Christmas? A knowledge of child development is necessary for the selection of educational toys for children. Lacking this, it is best to seek the advice of someone who has made a study of the field.

Large muscles first. Materials and equipment best suited to the younger children emphasize first the use of larger muscles. The jungle gym in the outdoor play space is an example of a piece of apparatus especially designed for climbing. It is so constructed that the child uses his arms as well as his legs in pulling himself up from the lower to the higher rungs.

It is an interesting point to note that equipment such as the jungle gym encourages social contacts and esthetic expression as well as physical development. Younger children feel a sense of achievement when they have climbed such a distance above the ground that they can look down on the world from the dizzy height of ten or twelve feet. It is not an uncommon thing for a timid child's first spontaneous singing to be done from the safety of this refuge.

Various types of development encouraged. The discerning onlooker in the above picture sees Pat at the top of the jungle gym singing for the first time and realizes that the esthetic development here, interesting as it may be, is only one of a number of things that are going on within that child. Of especial significance is the evidence of emotional growth which is taking place, as proven by the fact that the child who was too shy to sing, heretofore, feels security enough, at this moment, to try, spontaneously and independently. Here is a living example of physical environment at work.

There may be something about the climb up or the use of the whole body that leads to a feeling of achievement or perhaps it is the sense of independence caused from reaching the desired goal without help. The fact is that the jungle gym, itself a fixture in the early childhood en-

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vironment, is responsible for a variety of types of development, if the child has access to it over a sufficient period of time, varying with the individual.

The early childhood educator realizes it is not enough that the child be kept busy or entertained. It is a known principle that definite learnings will take place as the growing child manipulates the clay, lifts the blocks, shapes the sand with his fingers, digs in the garden, paints at the easel, swings on the bar, slides down the slide, feeds the rabbits, hammers and saws, plays in the playhouse, beats out rhythms on the drum, measures and computes quantities and materials, learns to interpret the symbols of written words, uses pencil and paper to convey ideas, shares his experiences verbally with others, uses books for research purposes, and does all the many fascinating things suggested to him by the presence of the various factors of his school environment, as he advances from one group to another, through the school of early childhood.

Educational Value of the Play Spirit

With the child study movement came a new attitude toward the education of the young child, largely because studies of children in all types of situations revealed unmistakable potentialities for learning during periods of so-called "play." Educators were interested to discover what there is about children's play that opens wide the floodgates for learning. As a result of this search, the play spirit has come to be valued because of its significance educationally. The teacher's role in the early childhood years cannot be fully understood without some knowledge of the value and meaning of children's play. Play in its true sense refers to activities engaged in for the sheer joy or satisfaction of doing them rather than for remote ends. It is the teacher who recognizes the goals in growth to be gained by the child. The child himself learns through approaching what he does in the same spirit with which he enters into his play activities.

Characteristics of children's play. Healthy children go about their play with an attitude of joy and enthusiasm

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which, if emulated by the average adult worker in business, home, or profession, would produce a minor revolution in the matter of quality and quantity accomplished. If the adult, with his ability and judgment, would approach the activities of his day in a genuine spirit of play, the world would indeed be a different place.

Play has been rightfully called, "the child's response to life."² There are certain universal characteristics common to practically all free play experiences of children. The seriousness with which they enter into their play activities, the intensity with which they participate with their whole beings, the undivided attention they give, the inventive genius with which they make materials at hand serve all kinds of practical and imaginery purposes, the quickness with which they gain knowledge and understanding through their experiences and put their learnings into immediate use—these and many other characteristics of play point toward one conclusion: that children's play has educational significance and may be made the major means of definite, consistent and constructive learnings, under skillful guidance. This guidance must be of an intelligent as well as an intuitive sort, or else the teacher, in her attempt to direct it, may put an end to the very spirit she so cherishes in her children as an avenue to learning.

Importance of the Teacher in the Early Childhood Levels

No environment, however well balanced and carefully planned, can serve the purpose of education of young children without equally well balanced and carefully planned guidance in combination with it.

By deftly controlling the materials available during any given day, and changing their relationship or location, the teacher directs the subject field of the children's activities and to some extent the nature of the development taking place. By skillful introduction of new ideas through conversation, story, picture, and supplementary materials, the teacher builds a background which will be woven by the child into his life pattern, at once or later.

The teacher's role in the school of early childhood is of

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such importance that specialized training for the early childhood teacher is considered highly desirable and by some educators absolutely essential.

There is a definite need for a separate Credential in early Childhood education (Nursery—Kindergarten—Primary)—covering the years two to ten, inclusive.

Reasons in brief for separate credential:

- A. The child's growth and development during these years is of a distinct nature, requiring a type of education different from that demanded by older children.
- B. The type of personality that can work successfully with this age differs sufficiently from that required for older children to warrant special selection.
- C. The background, skills and emphasis in teacher training differs markedly from that needed for children over ten.
- D. The educational emphasis differs, also, between younger elementary and older elementary children, even where the subject matter might appear to be the same. The teacher of early childhood education teaches *how* to read, *how* to write, *how* to figure, whereas the teacher of the later elementary years assumes that the children have already achieved these basic skills and can attack their problems with these tools already mastered.
- E. Specialized teacher training is required, due to basic differences in types of life-adjustments made by older and younger children. In the early years, the major stress is on behavior tendencies, attitudes, appreciations, and adjustments to people and immediate surroundings, whereas with older children, these fundamental tendencies have already been established, and these earlier learnings may be brought to bear on the application of subject matter to felt needs of the child. ³

Stereotyped teaching. Unfortunately, the early kindergartens and primary rooms became more or less stereotyped and followed a fixed daily routine which consisted of clocked off periods into which all the activities of the day were pigeonholed by the teacher. Every child in the

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group was doing the same thing at the same time. Teachers were graduated from the training schools with a list of organized games for the children to play and a cherished selection of patterns which the children were to fill in with colored crayons. The success of each teacher in the field was measured by the variety and number of patterns used by her children throughout the year, and the precise manner in which her "little folk" followed her every direction. In fact, the group was entirely dependent on the teacher for suggestion on "what to do," and individuals with ideas other than those of the moment were severely reprimanded. The child became more or less a "puppet" who moved or remained inactive according to the dictates of the adult.

Creative teaching. It is true that the ability to follow directions and to comply with requests is an important learning which the modern teacher of early childhood strives to develop in her group as earnestly as did her predecessors, but not at the expense of the child's ability to assume responsibility for his actions, initiate and invent ways of using raw materials, and to "plan his own work" and "work his own plan" in compliance with the social ethics of his group.

Qualifications for teaching in the early childhood levels. It goes without saying that this quality of creative teaching demands a distinct type of personality.⁴ Of special value are such characteristics as a definite interest and joy in children, a keen mind capable of quick observation and careful analysis, appreciation and aptitude for music,⁵ patience, initiative, perseverance and enthusiasm, a certain personal charm, a willingness to live and let live, ability to see a remote goal and hold to it, to forgive a hundred times over, and to give to each necessary repetition of a task the flavor of a fresh beginning, and most of all, potentialities for growth in each of these characteristics.

The rewards of such teaching are measured in terms of at least three dimensions: first, the growth and development such a teacher sees taking place in the children under her guidance; second, the contribution she is confident of

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making to the life of the community and nation; and third, the knowledge that her own personality and talents are being developed and utilized to full capacity, every day of the world.

Definition of Early Childhood and Need for Unified Educational Provision For It

Successive levels of the early childhood years. Many educators who are familiar with the developmental needs of the young child advocate a unified educational provision for the first ten years of life. The nursery, kindergarten, and primary are considered as related parts of a larger whole known as the "school of early childhood." Under this plan it is possible for a child to enter the lower group at the age of two and advance from one group to another until he reaches the age of eight or nine. Thus, six to eight of the most formative years of his life may be spent in a series of environments designed to provide consistent growth from one development level to the next. On this basis, the school of early childhood assumes major significance in twentieth century American education. By educators who understand its purpose it is considered to be of more importance even than higher learning in the life pattern of the individual.

School of early childhood defined. Envisioned as a separate administrative unit in the educational system of America, the school of early childhood

. . . includes socialized learning through multiple contacts with meaningful, interesting, and vital experiences. Social situations are carefully arranged for living with other children and concentration is centered upon the child's early need to explore and understand his environment. Awareness is increased, new vistas of appreciation are opened, and the child's foundation of good attitudes and behavior habits in physical and mental hygiene, industry, creativity, and social standards is enlarged and stabilized. The school of early childhood encourages independence and responsibility in thought and action and develops understanding, knowledge, and skill as a basis for intelligent participation in the experience of home and community.

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This unit represents the finest wisdom of the whole school system and is the field that must necessarily reconstruct the educational program of the entire world. It emphasizes two principles of child growth which are basic in any consideration of educational aims. The first to be emphasized is *integration*, in which the child is regarded as a total organism every moment of his life. He responds as a whole and not through separated functions . . . The second principle is *continuity*, which interprets human life and education as an ever-growing and interacting relationship. Child development is a continuous, unbroken process.

The nursery-school teacher needs an understanding of the kindergarten and the primary school, and the kindergarten and primary-school teachers need to understand the needs of the nursery school. Only then may we have a continuous process of education, based upon the needs and capacities of the individual, the nature and quality of his learning experiences, and the ideal toward which both of these are advancing. ⁶

Administration, Grouping and Supervision in the School of Early Childhood

Bringing the three levels of early childhood together into one main school plant gives administrative unity to the nursery, kindergarten, and primary groups. Architecturally, this is both practical and effective. Plants providing adequately for all three branches of the school of early childhood are economical and logical. Placed in the hands of administrators familiar with the developmental needs of the early years, the school is able to run as a complete unit of the educational system, with each separate group making its maximum contribution to the developmental level which it serves.

Even in systems where there is no provision for the lower levels of the school of early childhood, it is considered highly desirable to house the children under ten in a separate building, rather than with those older.

A study of child development lends special significance to the question of grouping according to maturation level, rather than chronological age. This problem can be met more readily when there is one administrative center for the entire early childhood age range. Whether or not this

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is possible, cumulative records of health, readiness and achievement tests, observational notes and developmental data as well as conferences with parents, may be kept from year to year as the child progresses through the school of early childhood, and used as an objective basis for grouping.

In some instances, successful attempts have been made to group children according to social maturity rather than intellectual achievement. In cases where teachers have the background to meet the challenge of such grouping, much can be done. It is a field which needs to be studied more thoroughly with the thought of taking social maturity into consideration more generally than at present.

Supervision of teachers in the early levels, up to and including the primary grades, is at present a much neglected field. Unfortunately, supervision usually covers such a wide age-range that special training in early childhood education is seldom one of the qualifications required of those in authority.

Readiness for Learning

Readiness for learning is the cornerstone of early childhood education. Skill in recognizing readiness and in building toward it marks the master teacher. All teachers of young children and their administrators should realize that effort expended in trying to learn a fact or skill when there is not sufficient readiness present, is largely wasted energy and may cause distastes, complexes, and negative attitudes on the part of the learner. Steps toward standardization and regimentation often defeat their own purpose by ignoring the laws of readiness in the early childhood years. Many activities engaged in by the younger children may at first thought seem educationally insignificant, but upon further investigation prove valuable in developing a readiness for more organized learnings, later.

Readiness in the academic fields of reading and number work has so far received the major emphasis in research and systematic testing. Valuable as objective tests are, the teacher's own judgment based on observations of the chil-

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dren in the school environment should be given due recognition in determining readiness for any given learning.

It should be remembered that the laws of readiness apply not merely to academic subjects but to all phases of child development, and to every field of activity in the school of early childhood, including music, art, language, and the various skills requiring muscular coordination.

Goals and Standards to be Attained by the Children During the Early Childhood Years

To those whose chief concern is with subject matter, problems of selection and organization of the curriculum for the lower school seem to become increasingly less complicated, the younger the children under consideration. In the attempt to simplify the material, a point is reached where there is little "subject matter" thought to be simple enough for the age; hence all children below that point are relegated to the "preschool." Such a view reveals unfamiliarity with the field of early childhood education.

Counter to popular belief, the learnings of the younger children are not diluted or weakened versions of those of the upper years, nor are the youngest members of our school systems merely marking time until they reach sufficient maturity to undertake given academic "courses of study." On the contrary, the amount learned by a young child in any consecutive two years of his life reaches staggering proportions and puts the average grown person to shame. It is probably true that the adult has become so used to writing his signature that he can do so and at the same time listen to a conversation, looking directly at his companion while writing, but his young seven-year-old son must give every ounce of attention to the order and shape of the letters of even such a familiar word as his own name. Everything else is forgotten for the moment as the child becomes completely absorbed in the immediate task of writing.

If the adult is to give thought to matters other than the simplest everyday affairs, these must be so woven into his

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routine of daily living that his mind may be freed to take care of emergencies and important decisions. Activities become routinized through much experience. During the years of early childhood, the child must give careful attention to the ever present problems of walking, talking, dressing, eating, learning how things work, discovering the basic laws on which he can depend both in the physical and the social world. Such things as putting on shoes, brushing teeth, combing hair, climbing stairs, regulating water faucets, locking and unlocking doors, all have little interest appeal to the adult, but are and should be fascinating, time consuming accomplishments to the child who is just learning how to master them. Many routines can and should be established before the child reaches the stage where he is ready to undertake the additional problems of learning to read, to write and to figure. However, there are several basic learnings that continue throughout the whole period of early childhood.

Training in the fundamentals. The curriculum of the school of early childhood is developed with social living at the very core. Basic skills and fundamentals are closely integrated with the daily experiences of the group. Written words and figures are considered to be symbols for ideas. Experiences are stressed which build backgrounds and *concepts before the symbols for them are encountered*. New symbols are of little significance to young children until they represent familiar ideas and concepts which have already been expressed in the medium of spoken language.

It is the task of the school of early childhood to give children a functional working knowledge of written language, in reading, writing, and spelling. Even though these fundamentals are approached directly only in the primary years (that is, the upper level of early childhood), the basic concepts and background of experiences on which those concepts are founded are built up during the whole period of early childhood.

Other basic learnings. The school of early childhood is also concerned with the development of certain other mat-

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ters of equal importance to the individual in his adjustment to life:

1. The ability to exercise initiative wisely, to plan his own activities in cooperation with other people, and to carry plans through successfully.

2. The ability to evaluate the results of the plans he has made, and to reorganize them in the light of his experiences and the counsel of others.

3. The realization that he is responsible for his own conduct, and the ability to assume responsibility for what he does.

4. The ability to make choices and take the consequences of his own decisions.

5. The ability to think constructively and to solve problems on his own level of maturity.

6. The ability to follow instructions and directions accurately.

7. Ability to work in cooperation with others toward a common goal.

8. Ability to share responsibilities and to come through with his end of an agreement.

9. The ability to function as a member of a group, recognizing his own rights in relation to others.

10. The ability to think and to act in consideration of the rights and feelings of others.

11. Ability to comply with and to respect law and authority based on reason, and to help in the setting up of rules which have in mind the good of all concerned.

12. The ability to recognize and face his own feelings and reactions, and to control their direction by reason and intelligence.

13. The ability to feel and to express appreciation for what others around him are doing, as well as for the beauty and wonder of nature, art, music, books, human invention and scientific discoveries.

14. Ability to sense the finer values in human relations and to recognize the worth of constructive rather than destructive forces in his own life and activities, in other people, and in the universe itself.

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15. The ability to see likenesses and differences in the things and people around him, and to classify and organize, in a rudimentary way.

Education for citizenship. The early childhood years have come to be recognized as the most impressionable period of human life. The foregoing list of learnings and abilities, if applied to any individual at any age, would be assets to him in whatever enterprise he might undertake. Many of these abilities are sadly undeveloped in older students and adults, who give evidence of an unpardonable lack of training in the very type of group activities that can and should be begun with children in the early years and carried on into adult life.

The school of early childhood, in endeavoring to help develop such abilities as those listed above, is placing itself squarely in line with one of the most basic needs of America, today: namely, the building of citizens capable of assuming the role of voting, participating members of society, self-sufficient, yet cooperative. That young children can learn these things more easily than adults has been proven time and time again. Kindergarten and primary children under wise teacher guidance have been known to plan, carry out and evaluate common projects, in such a manner that adults would be proud to be members of a similar group undertaking.

Learning by word of mouth, experience and observation. The young child's ability to learn from his immediate world is phenomenal. A child usually remembers more details than the average adult with whom he shares a common experience. What he remembers has to do with details to be seen, heard, or gained directly by touch, smell or taste; these he pieces together along with what background he may already have gained. In this way the experience makes its imprint upon his mind. The young child is most sharply aware of sense impressions which come to him from the "here" and the "now."

Growth is slow, but steady, in the early childhood years. There are no sudden accelerations. Learning is a continual by-product of daily living. Knowledge is increased gradu-

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ally, the "how" of things becoming a little more familiar to the child, and his own brain and body a little stronger with each fresh experience. The extent to which developments do take place in this way are at times breath-taking to those who watch with seeing eyes!

Among those who watch are not only teachers, but also parents, "fond," and otherwise!

Parent Education

Cooperation between home and school is a field calling for much deeper thinking than the mere matter of seeing that parents visit school and try to understand what their children are doing there. The question of parent education seen in true perspective, becomes one of parent-child relationships in the home. Physical environment, influence of companions and those who care for the child, consistent guidance and background as well as emotional atmosphere all play a decided part in the growth, development and education of the young child just as much in the home as at school.

It is easy enough to say that responsibility for these matters rests with the parents, but early childhood education is as much concerned with the education of parents as with that of their children, realizing that there can be no real division of values here. Education for parenthood is of vital importance if early childhood education is to be completely effective. The school of early childhood must assume its full share of responsibility by including a program of parent education among its services to the community. There is need for further pioneering as well as for a follow-up of the efforts that have already been made in this field.

Day Nurseries, Nursery Education Centers, Child Care Centers, Twenty-Four Hour Provision for Children

No discussion of the early childhood aspects of twentieth century American education could overlook the question of preschool child care centers (for children two-to-five)

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and extended day care before and after school (for children of school age).

Day nurseries and nursery schools. Until war brought the problem sharply to the front, care for children during the day while their mothers were at work was left largely to chance, except in communities where there were day nurseries. These have usually been supported by private enterprise, or by community chest funds, although fees paid by parents have partially met the costs.

Day nurseries have been distinguished from nursery schools in that the former were definitely for children of employed mothers, and were under no obligation to provide for more than the physical care of the children. Nursery schools, on the other hand, have often been patronized by families who felt the educational experience provided by the school merited the child's attendance, whether or not his mother was in a position to care for him herself. In fact, many parents feel the help they themselves receive in problems of parenthood is equally as valuable as the educational advantage of the child's attendance at nursery school.

Nursery education centers. As in every other field where rapid institutional growth takes place, schools for very young children became so diversified that it was necessary to formulate minimum standards for nursery education. The title "nursery school" was so loosely applied to any group where children under school age were assembled that the term "nursery education center" began to be used to designate those institutions equipped and staffed to provide for the total education of the young child under five. Those also including the five-year-old have become known as preschool education centers. Parent education in these centers is an integral part of the program.

All parents enrolling children in such a preschool education center must agree to visit the school at intervals, have regular individual conferences with staff members, attend group meetings for discussion of common problems and in other ways take part in the life of the school. The school staff includes (in addition to the director) head

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teachers, assistants, a nurse, a dietician, and a custodian, specialists whose services are available as needed. Among these are also the pediatrician, the orthopedist, the psychologist, and the consultant on speech.

Most nursery education centers and preschool centers have been set up in connection with teacher training institutions or research centers, or both. It is unfortunate that most of these centers have limited their sphere of usefulness to the preschool age. There is definite need for a continuation of the same quality of service through the entire period of early childhood.

Federal nursery schools. During the depression years between the two wars, when applicants were more plentiful than teaching positions, many teachers were put to work on the problem of child care when the government undertook the establishment of federal W.P.A. nursery schools quite extensively throughout the country. Here children of unemployed parents were cared for through the day and given well balanced portions of food, while at the school.

Child care centers. The second world war changed the problem by shifting populations and sending large numbers of mothers to work. Federal and state grants of money were allotted for the establishment of child care centers under the jurisdiction of local public school systems. In some instances old buildings were rejuvenated for the purpose, in others, new emergency structures were built. By this time, however, the pinch of the war-time teacher shortage had begun to be felt, especially in the early childhood levels, and the problem of securing trained personnel for the child care centers became acute.

The success of centers for the care of children hinges on a recognition of the fact that there is a responsibility for the growth and development of the children over and above mere physical welfare. The two greatest issues are the securing of proper and adequate physical equipment and the selection of a staff capable of arranging and controlling the environment and possessing a sound knowledge of the principles of child growth and development. Given these two prerequisites, a community can set up centers

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where children may be left without ill effects, which is probably all that can be expected in emergency situations.

There are instances, however, where the undaunted leadership of already overburdened educators has made it possible to establish highly worthwhile preschool care centers and provision for extended day care of school children. This is a field in which "an ounce of prevention" is really worth a "pound of cure," especially in cases that might later develop into juvenile delinquency if left to chance.

Child welfare. Early childhood education, in its broader sense, must also concern itself with such matters as the care of children in licensed boarding homes as well as of children who go home after school to an empty house. There are also those who are occasionally left alone because parents are away during hours when their children are ill or out of school. Although thought has been given to such problems in certain localities, standards in general are quite lax. Isolated instances of cruelty and neglect still make headline material of news appeal to an otherwise disinterested public, to say nothing of the many run-of-the-mill cases which reach welfare agencies and the courts, and countless others never heard of by John Doe in his comfortable world.

The White House Conferences on Child Health and Protection, and the Department of the Interior have made studies in the field, as well as privately financed welfare agencies and research centers. More legislation is needed, but laws alone are not enough. An intelligent public opinion must be built up which realizes that what concerns one concerns all in matters related to the interests of young children in any of our forty-eight states.

Training for Early Childhood Education as a Profession

The business of teaching the younger members of American society has long since passed the point where it could be thought of lightly. No one who understands "what it is all about," looks on nursery, kindergarten, or primary

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teaching as anything but a profession with definite qualifications and specialized training.

National professional organizations. The professional aspects of the field are further verified by the existence of several national organizations whose memberships are held together by a major interest in early childhood education. Among these is the Association for Childhood Education with national offices at Washington, D. C. State associations and local branches are located throughout the United States, as well. Something of the calibre of this group can be ascertained by the extent of the membership and the scope of the official publication which announces itself as "The magazine for teachers of young children to stimulate thinking rather than advocate fixed practices." The executive board of the Association for Childhood Education consists of six members including national representatives from each of the three main divisions of early childhood education: Nursery School, Kindergarten, and Primary.

The professional viewpoint toward teaching in this field is again emphasized by the existence and contributions of Delta Phi Upsilon, national honorary student society of Early Childhood Education. This organization consists of student chapters and alumnae associations whose purpose is to encourage the cooperation of those who look on early childhood education as a profession of dignity and challenge.

Single salary schedules. In becoming a profession worthy of the name, early childhood education has had to face the problem of an outgrown salary schedule. The salaries of teachers should take into consideration training, preparation, and experience, regardless of the level taught in the school. A kindergarten teacher with a college degree is certainly entitled to as much financial remuneration as a teacher with comparable education and experience in the upper elementary or secondary field. When teachers with specialized training in early childhood can be assured of salaries on the same basis as any other teacher in the system, there is incentive for those with special talents and aptitudes for work with younger children to prepare themselves to the full extent of their capacities.

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Systems wishing to strengthen the educational facilities of the community could do no better than to incorporate the single salary schedule and thereby encourage more training and preparation for teachers in the early childhood levels. In localities where this has been done, the results of the strengthened quality of teaching are marked, especially as children enter intermediate grades with sounder foundations in established habits, behaviors, skills, and academic learnings. The need for remedial work in upper levels is also decidedly reduced.

The major in early childhood education. Unfortunately, the training of early childhood teachers has sometimes lagged far behind the best that is known in the field, because it has too often been given little emphasis or lost in the maze of a general elementary course, or broken up into unrelated parts and only partially covered. The early childhood years from birth to ten, as has been shown, are a complete unit in child development and should be studied as such by those who intend to specialize in any level of the field. Therefore, preparation and training for early childhood teaching calls for a major emphasis in college.

A definite contribution to American education is being made by institutions of higher learning where training for early childhood teaching is considered a major field. The early childhood major necessitates special courses in which a consistent effort may be made toward preparing students for the profession.⁷ The graduate with this background is definitely and uniquely fitted to guide a group of children in the early childhood years. Under her leadership and in cooperation with her administrators, the goals of early childhood education may be worked out in our schools, with intelligence and skill. In such teaching lies the hope of twentieth century American education.

NOTES ON THE CHAPTER

1. See Jean Jacques Rousseau. *Emile, or Treatise on Education* (Paris: 1762).
2. See Rose R. Alschuler and C. M. Heinig. *The Child's Response to Life* (Boston: Houghton Mifflin Company, 1936); also Association for Childhood Education, *Childhood*, II, (Boston: Houghton Mifflin Company, 1936-1937.)

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3. Dorothy D. VanDeman, *The Rights of the Young Child to a Teacher Especially Trained in Early Childhood Education*, p. 1. Mimeographed pamphlet available through Early Childhood Education office, University of California, Santa Barbara College, Santa Barbara, California.

4. See Dorothy D. VanDeman, *op. cit.*, pp. 3-6 for list of personality traits for early childhood teachers.

5. See Dorothy D. VanDeman, "Music in the Air," chapter IX, in Dorothy W. Baruch, *Parents and Children Go to School* (Chicago: Scott Foresman and Company, 1939), p. 341.

6. See Edith M. Leonard, Lillian E. Miles and Catherine Van der Ker, *The Child at Home and School* (New York: American Book Company, 1942), p. 346.

7. For a summary discussion of such a course, see Edith M. Leonard and Dorothy D. VanDeman, "Early Childhood Teachers Need Special Training," *Progressive Education*, XXI (May, 1944), 226-30; 238-39.

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CHAPTER XXIII

THE ELEMENTARY SCHOOL

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The elementary school is, in many respects, the most important educational institution in America. It serves a far larger proportion of the entire population than any other part of the school system. In 1940 almost nineteen million pupils were enrolled in public elementary schools and another two million attended private elementary schools. This total of nearly twenty-one million pupils represents more than sixteen per cent of the entire population. The elementary school serves young people for a longer period of time than any other school, and influences them at a most important period in their lives—a time when basic understandings, skills, attitudes, and ideals are being developed. The future men and women of America, the future of America, will be determined to a significant degree by the work of the elementary school.

In the 1840's the graded, common school of America was being established. Just a century ago, Horace Mann was meeting bitter opposition and scornful indifference as he labored tirelessly to arouse the common people to recognize the importance of the common school. The fight waged by Mann and many other far-seeing pioneers was long and hard. By the opening of the twentieth century, however, the elementary school was well established as an important and characteristic American institution.

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This people's school, finally recognized as basic to the existence and perpetuation of a democratic society, nevertheless, was in general autocratically organized and controlled. The curriculum was academic, still conceived as supplemental to the basic education which was assumed to be gained in the home and community. The first half of the present century has brought improvement in every aspect of the work of the school. Before presenting some of these developments an attempt will be made to define the elementary school.

No single, terse definition of the elementary school can be adequate; for the more than two hundred thousand elementary schools of America vary in many respects. They vary in size from one-teacher schools comprising less than a half-dozen pupils of assorted ages, brought together from remote homes on prairie or desert, in woodland or mountain, to large schools on busy metropolitan thoroughfares enrolling two thousand or more children taught by scores of teachers. Although the number of one-teacher schools is gradually being reduced through consolidation and increased provision of transportation, more than half of the nation's elementary schools are still of this type. School buildings vary from disgraceful shacks to beautiful structures containing every convenience that might contribute to a thoroughly healthful, functional school home. Great extremes can be found, also, in adequacy of equipment and supplies, teacher preparation, and instructional practice.

At the turn of the century the typical elementary school was one of eight years or grades, although in several southern states only seven grades were provided. Beginning in 1873, the kindergarten came to be added to many city schools, making a nine-year school. While the kindergarten is now accepted in theory, only one child in four was attending kindergarten in 1940.

Since the introduction of the junior high school in 1910, many pupils of grades seven and eight have gone into this institution. In many cities, consequently, the elementary schools comprise only grades one to six, in addition to kindergarten. In spite of the extensive development of the

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junior high school, however, two-thirds of the seventh- and eighth-grade pupils of the nation still attend elementary schools. This is due to the perpetuation of the eight-grade elementary school in the small cities, towns, and rural areas as well as in some large communities.

To summarize, the American elementary school is attended by virtually all boys and girls from age five or six to age twelve, thirteen, or fourteen, and provides a substantial part of the basic education of the American people.

Aims and Functions of Elementary Education

There is universal agreement that the elementary school should help children master the skills of communication and computation, in so far as their growing maturity enables them to do so. Opinion is far from unanimous as to its other chief functions. There are those today who think of it as the school of childhood, with responsibility for careful guidance of every aspect of each individual's development. At the other extreme are those who think of it still as the place for learning "readin', writin', n'rithmetic" alone. Since its beginnings, the elementary school has accepted this mastery of the three R's as one of its major aims, if not indeed its sole objective. The great need in pioneer times was indeed to establish or to extend literacy, but the change from pioneer community to a huge, complex, dynamic, industrial nation has forced on the elementary school a great number of responsibilities not originally conceived as belonging to it. In the demand that the school "return to the three R's," still frequently voiced, there is evidence that a great many of our citizens do not, even yet, fully understand the enlarged responsibilities of their people's school.

It may be helpful to enumerate some of the developments to which reference has been made, and trace their influence on the school. At the beginning of the twentieth century, as has been stated, the elementary school program had assumed a certain definite pattern. The accepted purpose of the school was to teach children certain funda-

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mental skills and that body of factual information which was specified in the course of study and contained in the officially adopted textbooks. A few concessions were made to the obvious need of children for physical activity and for contact with culture through brief recess periods and special time allotments for formal lessons in drawing, music, and manual training. The teacher's functions were to assign lessons, test their mastery, distribute rewards in the form of "marks," promotions for successful achievement, and "good" behavior, and impose penalties and punishments on those who did not learn their lessons or behave properly. The pupil's role was to obey the teacher, study his lessons, and refrain from communicating with his fellows. The whole pattern is too familiar to require elaboration. This brief characterization of the school of 1900 is given not for the sake of condemning it, but to provide a basis for describing the modifications and development that have taken place during the present century.

Two psychological emphases have had a profound effect on school practice. One of these is the convincing evidence of the magnitude and universality of individual differences.' Objective tests and other measuring instruments reveal tremendous differences in achievements and abilities in every group of boys and girls, no matter what basis of grouping is employed. A typical fifth-grade class contains pupils who read with second-grade ability and others whose reading ability is equal to that of average eight- or ninth-graders. Similarly, profound differences exist not only in the mastery of other skills and subject matter but in such areas as emotional maturity, personality adjustment, initiative, resourcefulness and other significant characteristics. This is why mass methods of teaching, uniform textbooks, and arbitrary standards of achievement now are regarded as unrealistic and inefficient in the face of the basic fact of individual differences. If teaching is the growth of each individual child, large classes and formal methods must be banished for they render it impossible for the teacher even to know the needs of the

individual. One of the greatest problems in teaching has ever been that of meeting the needs of each child while working with children in groups. Encouraging progress has been made in devising ways and means of solving this problem. Flexibility in the use of materials of many types, provision of situations in which pupils may discover and reveal their difficulties and needs, diagnostic and remedial procedures, and an increased sensitiveness of teachers to the unique characteristics and needs of each child have all proved helpful. Furthermore, it is recognized that goals and standards that are reasonable for one child may be wholly unattainable by a second one and entirely too limited to challenge the abilities of a third.

Another psychological contribution lies in the more valid understanding of the nature of learning and development that has come since 1900.² Learning is now recognized as an active, not a passive, process. Each individual is in constant interaction with the physical and social aspects of his environment. He adopts purposes which he seeks to carry out by manipulating various factors in the environment. He, in turn, is affected by reactions from these factors in ways which are satisfying or disturbing. Whatever his activity and whatever the reaction upon him, he learns. He learns what is good to do and what is unfruitful, annoying, or dangerous. He learns better and more successful methods in contrast with ineffective procedures. He learns to know the extent and limitations of his own and of others' abilities. He learns through active participation in experiences which involve inanimate things and other people in addition to himself. Through such experiences he gains physical skill, intellectual insight, and emotional satisfaction. He throws his whole self into the experience and his whole self is affected by the outcome.

The attempt to make effective in practice the dynamic conception of the learning-experiencing process has greatly modified the pattern of schooling inherited from previous generations. Many teachers now are concerned that children enter, wholeheartedly and with zest into each aspect

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of the learning process: that they plan and work to attain goals that seem significant to them, and that they evaluate the wisdom of their choices both of goals and of means of attaining them. This implies a radical modification of those earlier procedures wherein the teacher told children what to do, gave detailed directions for each step in the doing, and served as sole judge of their success or failure.³

It is obvious to all that children today live in a much more complicated world than did their grandparents. They are subject to many pressures; innumerable demands are made on them. Much more of understanding is required; balanced judgment is needed to choose between alternatives that involve subtle rather than obvious values. At the same time, today's children have fewer opportunities to learn the ways of the world and of man by direct and responsible participation in the work of the family and the community. The family is less an economic and social unit. The community is larger, more complicated; its inner workings are far from obvious to the man who runs. An education adequate to the needs of the times, consequently, must provide more of intellectual understanding, sympathetic concern, and habits and attitudes of responsible participation than did the little red school of grandfather's time.

A significant trend, developing chiefly during the second quarter of the century, is the attempt to discover and practice the peculiar type of education which is most suitable in a democratic society. The exploitation of educational systems by foreign dictators to serve anti-democratic ends has produced dissatisfaction with the traditional elementary school in America. This school, as previously stated, was largely autocratic in control and method, although it professed democratic goals. The implications of democracy for education are now being taken seriously for the first time even in democratic America. Now it is becoming evident democratic education is something more than free schools for all children and the absence of partiality and favoritism in their treatment, important as these things are. Many now see that the school of democracy must provide abundant opportunity for all children to

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practice those ways of thinking and working that are essentially democratic. If responsible participation is the essence of democracy, the school program must stress co-operative effort in which each member assumes responsibilities to the group. If the democratic method of progress is through the pooled intelligence of the group rather than the leadership of even a benevolent dictator, then boys and girls in school must learn the scientific techniques of discovering truth and the democratic methods of arriving at group decisions. These things must be basic elements, not incidentals, in the organization and operation of the school.⁴

The implications of democracy and of modern psychology both indicate the importance of responsible and co-operative participation of boys and girls in all significant phases of their educational program. In all elementary school grades, children can and should assume partial responsibility for the appearance, arrangement, and use of their classroom. They should share in responsibility for the care, protection, and improvement of the school and school grounds. They should participate in determining the behavior standards and types of conduct most conducive to effective achievement, safety, and wholesome relationships in the classroom and school and on the school grounds. It is just as uneducative to deprive children of the opportunity of growing in responsibility as to expect them to assume total responsibility for such matters without previous experiences.

The Curriculum of the Elementary School

A reorganization of the curriculum to provide more responsible, purposeful participation by boys and girls is under way. A dominant feature of the newer curriculum is the provision of a generous amount of time for the development of what is commonly called a unit of work.⁵ The unit of work consists of a large number and variety of experiences and activities which are related to the study of some significant aspect of social life, such as the life of the local community or the farm, the culture of a primi-

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tive group or of the Mexican or Chinese people, or a development such as aviation, radio, or the newspaper. After the stimulation of an initial interest in the selected area of study the children themselves provide the motive power and help determine the direction as the work on the unit moves ahead. Each experience opens up new possibilities for further challenging activities as well as obstacles to be overcome and problems to be solved. Each forward step demands more information and increasingly authentic knowledge. New skills are needed; new insights and appreciations are gained. Since the whole class participates in the work, the habits and attitudes conducive to effective and harmonious cooperation must be practiced. First hand contact with things, places, and processes yields evidence, data, impressions. As the pupils strive to give expression to the insights and understandings they are gaining, they grow in their ability to express themselves creatively in words, paints, fabrics, wood, and other media. The skills of oral language, reading, writing, and number are needed, practiced, and improved frequently as the work progresses, thus taking their place as essential skills to be used whenever needed in the accomplishment of a worthy purpose, not as ends in themselves. In most schools supplemental practice in these basic skills is provided as needed to make their acquisition more effective and permanent.

The functional use of skills and subject matter makes learning meaningful and permanent. The emphasis on purposeful activity helps children achieve a harmonious integration that makes them effective, balanced personalities. It is hoped that the stress on cooperation will contribute to the development of a generation which can practice democratic processes more effectively than any preceding one. A word of caution must be interjected: the values inherent in this modern organization of the curriculum are not automatically attained. Their attainment depends upon skillful guidance by wise and competent teachers. These teachers must be trained to provide such guidance.

Logically, the curriculum of the elementary school consists of: (1) the basic skills of language and number; (2)

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the content subjects of science and social studies (geography, history, and citizenship); (3) the expressive arts of drawing, painting, music, bodily movement and the like; and (4) health and physical education. Formerly, these various subjects were taught in almost complete separation, a practice which has by no means entirely disappeared today. Means of correlating these subjects and of using them to enrich firsthand experience have been suggested above. Whether taught in isolation or correlation, however, several improved procedures for teaching the skill subjects have found their way into the schools. Some of these will be enumerated.

1. The importance of readiness for learning is being recognized.⁶ Many of the skills involved in reading, writing, arithmetic, and other areas can be effectively learned only after the individual child has reached a certain stage in physical maturation and has acquired an adequate experiential background based on many first-hand experiences. The attempt to force complex skills upon immature children results in verbalistic learning at best, and is likely to produce frustration, failure, and all the devastating effects on personality that tend to accompany frustration.

2. Requirements in the skills more closely approximate the needs of real life situations than was formerly true. No longer are children expected to master arithmetical processes that are seldom or never met in the normal experiences of life, or to learn the spelling of words they will never use.

3. Skill processes are introduced gradually so that pupils can understand and master each step before going on to the next. Too rapid intake of intellectual food leads to mental indigestion—confusion and misunderstanding. Diagnostic tests and devices are used to check upon the mastery of each step.

4. Increased emphasis on insight and understanding brings better mastery of skills with less routine drill.

5. Various procedures are employed to adapt work to the abilities and needs of each individual. Reading materials on several levels of ability are provided in each class.

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The pupils in a single class are divided into two, three, or more groups for teaching and for practice work. Self-teaching and self-testing materials are freely used. Pupils are helped to analyze and to correct their own errors and deficiencies. Pupils work in pairs to test or provide practice for each other.

Elementary School Teachers

In 1940 there were well over a half million elementary school teachers in the United States, of whom some thirteen per cent were men and eighty-seven per cent women. One in three could claim graduation from a four-year college. The standards for granting of elementary school teaching credentials range from an indefinite requirement that an examination be passed, in four states, to the possession of a bachelor's degree, required in five states. This represents a substantial improvement over the status of teacher education in 1900, when the typical elementary school teacher had less than the equivalent of a high school education.

The typical teacher in the elementary school is responsible for the guidance of the learning experiences of a group of twenty-five to forty or more boys and girls during the whole school day. These pupils, generally, are classified in one grade, although in small schools the teacher may have pupils of two or more grades in her room. In the one-teacher school will be found pupils representing most if not all of the eight grades. Guidance of pupils' learning throughout the whole area of the elementary school curriculum demands a broad cultural background and mastery of many teaching techniques on the part of the teacher. In some schools the problem is simplified by departmentalizing the organization of the school and the work of the teachers. In such schools a teacher may teach only one or two subjects. Departmentalization is common in grades seven and eight, but rare in the primary grades. The chief advantage claimed for this practice is the increased specialization and expertness of the teacher. The

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case for the one-teacher-per-class plan rests chiefly on the better understanding and guidance of each child which is facilitated by the close and sustained contact of the teacher and her group.

Among the important characteristics of an elementary school teacher are: a fondness for boys and girls and pleasure in being with them and helping them; sympathetic understanding and appreciation of other people; patience, poise, self-control, leadership, good physical and mental health, and a desire to serve the community by working in a constructive occupation.

Modern concepts of teacher education emphasize the selection and development of well-adjusted, cultured men and women. The importance of community-mindedness is recognized, and the need for adequate understanding of the social, political, economic and international world which the teacher will attempt to interpret to boys and girls. As the relationship of the school and the life around it becomes more intimate, the need increases for teachers who can participate as citizens and neighbors in the constructive activities of the community. No longer "Sits the schoolhouse by the road, a ragged beggar sunning." No longer can teachers dwell in ivory towers, aloof from the real world their pupils are being prepared to enter.

Not only must teachers know the world they are to teach about; they must know the pupils they are to teach. As scientific child study has developed, the basis has been laid for an ever better understanding of boys and girls and their growth and development. Teachers can properly be expected to keep abreast of this development and to be experts in understanding and working with children. Sufficient cultural and professional education to equip young men and women for the responsibilities of teaching in the elementary school can assuredly not be provided by less than four years of college work. Young teachers with this amount of preparation go out from the training institution with much still to learn on the job.

Although many cities have adopted the policy of paying equal salaries to elementary and secondary teachers who

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have equivalent training and experience, the average salary of city high school teachers is from fifteen to twenty per cent greater than that of elementary school teachers. The wide difference in the amount of preparation required of elementary and secondary teachers that formerly existed is being reduced. As this difference disappears, it is to be expected that the discrepancy in salaries will be eliminated. Indeed it is increasingly evident that the discrepancy must be eliminated if the type of teachers so urgently needed is to be attracted to elementary school teaching.

Elementary School Pupils

The twenty-one million elementary school pupils of the nation differ in almost every conceivable respect, yet they are all young Americans deserving of the best guidance and education it is possible to provide. Some are so limited in ability they can slowly and with difficulty absorb only the simplest rudiments of knowledge. Others have minds so quick and keen that the school can scarcely hope to provide for their maximum growth. Others come to school with minds, bodies, or personalities warped and stunted because of factors which are beyond their control. We may, of course, think of the great majority as normal, wholesome, "average" boys and girls who will be the common man and the typical woman of tomorrow.

Several White House conferences have focused attention on the needs of children and especially on the handicaps which many possess. It was recently estimated that there are 300,000 crippled children in America and that at least one-third of these need a program of special education. Some school systems do indeed provide special rooms or schools and special transportation facilities for crippled children. The special program is designed to help such children correct or compensate for their handicaps in so far as possible, but in any case to become resourceful, self-sufficient and courageous persons. It is difficult to state the number of pupils who are deficient in hearing or vision, for there is a gradual variation from perfect sight and vision to total blindness and deafness. Many thousands

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of children are more or less seriously handicapped in these respects and the school has the two-fold responsibility of discovering the deficiency and of making special provisions for pupils so handicapped.⁷

A large number of boys and girls, numbering perhaps a million, need special speech instruction. Stammering, stuttering, lisping, and foreign accent are only a few of the types of defective speech which need remedial treatment. Modern school systems provide special supervisors and teachers of speech correction for the most serious defects, if not for all.

The number of children who are malnourished and undervitalized is larger than all of those in the above-mentioned groups combined. Some of these boys and girls are tubercular, some have weak or damaged hearts, and a very large group suffers from malnutrition in spite of the wealth and relative enlightenment of the United States. Many schools are attempting to improve children's nutrition through their school lunch programs, which have been aided in recent years by grants from the federal government. Special rest is frequently provided for children whose health and vigor are below par. Properly planned programs of physical education can contribute to the building of increased strength and vitality as well as to the correction of defects.

Wherever there are schools there will be found socially-handicapped children as well as those with physical and mental deficiencies. These are often called problem children, and they are indeed children with problems. They range in degree from those who have merely been over-protected, over-indulged, or "spoiled" at home to those who are already delinquent and anti-social. Whatever the type of maladjustment, whatever the cause, the problem is an educational one. The school must seek to replace unwholesome motives with desirable ones, unsocial behavior with socially-approved conduct, and pleasure in wrong doing with satisfaction in worthy achievement. The teacher needs the patience, scientific insight and objective attitude characteristic of the most professional physician, for

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it will do no more good to blame the child for his unfortunate behavior than for an infected tonsil. More specialists trained in the psychology or behavior adjustment are needed to supplement and guide the efforts of classroom teachers.

In spite of their differences, children are much alike in many respects. They have common tendencies and needs. They all crave a sense of security, a feeling of belonging and of having a secure place in a group of other persons. They need to feel wanted and to receive affection. They hunger for activity, especially the adventure of new experience. They must learn to do new things, to understand better what goes on around them. They must have success in at least some of their attempts to reach out to new achievements. Without a reasonable satisfaction of these basic needs they cannot develop naturally and wholesomely. More than ever before, teachers are trying to understand the operation of these fundamental drives of boys and girls and to provide opportunity for their pupils to experience security, achievement, and satisfaction.

Earlier, each grade in the elementary school was supposed to represent a definite level of academic achievement, and no pupil was eligible for promotion from one grade to the next until he had met a fixed standard. In consequence, children of nine or ten might be found in the first grade with six-year-olds, and youths of sixteen, eighteen or even twenty might be kept in grade seven or eight. Unfortunate results arose from this practice, unfortunate for the younger and the older pupils alike. Standardized tests, both mental and educational, revealed the futility of expecting uniform achievement from pupils who varied greatly in practically all respects. Experiments showed, too, that pupils of limited ability who were promoted usually made as much progress as, or more than, those of similar ability who were retarded.

For various reasons, then, present practice favors the grouping of children in classes of similar ages, with only such deviations as seem justified in the light of all available evidence. Compared with earlier practice, one can

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now expect to find a larger proportion of seven-year-olds in the second grade, eight-year-olds in grade three, and similarly for the other grades. The one common exception is in grade one. Since custom and law have fixed age six as the time for entering the first grade and since six-year-olds vary greatly in maturity, some adjustment is needed here. An increasingly popular adjustment is the provision of a prereading or transition group for the immature children, who are given a rich variety of development experiences for a half-year or a year before they enter the regular first grade.

Promotion practices vary in a less fundamental respect. In some cities promotion is by half-grades and occurs each half year. In such situations, first grade entrants are admitted twice during the year. Other schools admit beginners and make promotions but once a year.

The Elementary School Environment

While the pioneer school was a sitting and listening school, the modern school provides opportunities and facilities for many types of active endeavor. The best classroom today is light, cheerful, attractive. It contains interest centers that beckon one to participate: there may be a work bench or two for work with wood, a corner with books one wants to read, an alcove containing easels for painting or sketching, a science shelf with collections of rocks, butterflies or flowers, growing plants, sprouting seeds or living pets. Nothing of interest to man is considered alien to the schoolroom. The tables and chairs are appropriate to the size of the children and adaptable to their use. The modern classroom is larger than its predecessor, for children must move about today to plan and work together, to secure and use materials, to give expression to new conceptions through dramatic play, more formal dramatization, rhythmic movement, or dance.

A variety of audio and visual aids to learning have come to supplement the textbook and the teacher's spoken word. Flat pictures, slides, filmstrips, moving pictures, in black and white and in color, with and without sound,

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have proved many times the Chinese conviction that one picture is worth ten thousand words. Radio and transcription bring the distant world into the classroom through the magic of the electronic tube. With picture and sound combined in television, increased vitality and reality of contact with the outside world can be provided.

Children no longer remain exclusively in school and classroom, however, as they study the work and play of mankind. They go out with their teacher to see at first-hand the activities of the farmer as he cares for his animals and as he plants, tends, and harvests his crops. They investigate on the spot the relationships of warehouse, wholesale market and retail store or the more complex activities at the railroad classification yards or the busy airport. The school walls have expanded to include much that takes place in the community at large.

Such nearly ideal conditions, however, are found in relatively few places. While nearly everywhere one may find schoolrooms where attempts to improve inadequate conditions are continually made, there are still far too many old school buildings that provide little more than sitting space in dull, high-windowed rooms. Audio-visual aids are as yet almost unknown in too many classrooms. Far too few classes have the opportunity to see and study through first-hand contact the fascinating, throbbing life of the community. There is an unfortunate lag between the best that has been done and the average practice. The pathway to better things has been opened up, however, and it is reasonable to expect that many more will soon follow along.

Organization, Administration, and Supervision in Elementary Education

The organization of the one-teacher school is simple indeed. The three school trustees of the district select the teacher, who for all practical purposes, is the school. In the two-teacher school, one of the teachers is designated as the principal and is responsible for keeping necessary

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records and submitting reports to county and state officials. In schools of six to twelve teachers, the principal is frequently relieved of teaching duties for a part of the school day in order to devote more time to administrative and supervisory matters. In larger schools, the principal devotes full time to non-teaching activities, and is definitely the educational leader of the school. His responsibilities are numerous. He organizes and administers every aspect of the school program so that teachers, pupils, custodians, cafeteria workers and all others can do their work most effectively and harmoniously. He supervises the attendance and conduct of pupils. He represents the school in the community, and cooperates with parents in meeting the needs of each pupil. Most important of all, he stimulates and guides the teaching staff in the continuous study of their responsibilities, problems, procedures, and achievements.

The professionalization of the elementary school principalship proceeded slowly until about 1920, the time when the Department of Elementary School Principals of the National Education Association was organized. Since that time the professional status and importance of this position have increased rapidly. In 1940, the Department of Elementary School Principals included some six thousand members. In that year state organizations of elementary school principals existed in three-fourths of the states, in addition to three hundred local and regional groups. These organizations have done much to elevate the principal's position and to promote the professional growth of their members. Departments of education of universities and teachers' colleges have provided training to make the principal a more competent leader and administrator. Half of the states, in 1940, required special certification for the elementary school principal. At that time it was estimated that well over half of the twenty thousand elementary school principals of the country possessed the bachelor's degree and nearly twenty per cent the master's degree. Approximately two-thirds of the principals were women; one-third, men. The proportion of

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men was greater in the larger cities and less in smaller communities.

Recent thinking recognizes the importance of democracy in administration and supervision as in teaching. Abundant evidence has shown the hampering and restrictive influence on both teachers and pupils of principals who function as autocratic administrators, ignoring the creative abilities of those they seek to lead. Democratic administration does not imply lack of leadership, but rather that type of leadership which calls forth, uses, and encourages the initiative, resourcefulness, and enthusiasm of every member of the school. The democratic principal organizes his staff of teachers so that the intelligence and wisdom of all may be pooled in the solution of their common problems. He uses his superior experience and insight to guide the thinking of those less experienced, not to deprive them of the opportunity to think. He is concerned that each staff member grow continually through responsible participation in all aspects of the life of the school. He believes that responsibility for making decisions that concern the whole staff should rest with the whole group rather than with one individual. Such decisions may relate to curriculum, methods, policies of pupil classification, use of building and equipment and many other matters. On the other hand, he protects teachers from unnecessary interruptions and from petty, routine, time-consuming duties in so far as possible.

In the largest schools, the principal is aided by an assistant principal and one or more school clerks or secretaries. In large cities, the various principals work under the leadership of one or more assistant superintendents especially charged with responsibility for elementary education.

In many cities, responsibility for professional leadership is shared by general or special supervisors as well as by principals. Such supervisors may serve all the teachers of the city, those of a geographical area, or those of a particular grade level such as the primary grades. Frequently they possess special training and competencies that enable

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them to be of great help to principals as well as teachers. Certainly the work of principals and supervisors should be nicely coordinated if their efforts are to be most fruitful.

Some states have provided a system of rural supervision, which makes available to teachers in small town and rural schools the stimulation and help of well-trained supervisors. Where such service has been rendered, the work of the small school has been greatly improved.

Supervision has been improved qualitatively as it has been extended to serve more teachers. The modern supervisor works democratically with teachers, helping them discover their own problems and assisting them to overcome their difficulties. The supervisor employs various techniques to stimulate and guide professional growth, to remove obstacles, supply materials, evaluate results, and coordinate efforts, all leading to improved teaching and learning.

Since 1900, great improvement has been brought about in every aspect of elementary education. Equally significant progress lies ahead. Research and experimentation will point the way to more valid goals and effective procedures. Improved standards in teacher education and a high type of administrative and supervisory leadership can and will bring an extension of improved practices to countless schools still relatively untouched by the significant advance of the past half century.

NOTES ON THE CHAPTER

1. See chap. XII, "Individual Differences," by Robert S. Ellis, in this volume.
2. See chap. x, "Conceptions of Learning," by Clarence E. Ragsdale, and chap. XVII, "The Nature of the Learner," by William F. Bruce, in this volume.
3. For a description of the new-type school, see John A. Hockett and E. W. Jacobsen, *Modern Practices in the Elementary School* (Boston: Ginn and Company, 1943), chap. I.
4. See chap. xix, "Democracy and Education," by P. F. Valentine, in this volume.
5. See John A. Hockett and E. W. Jacobsen, *op. cit.*, chap. III.
6. See Clarence E. Ragsdale, *op cit.*, p. 218.
7. See Harry J. Baker, *Introduction to Exceptional Children* (New York: The Macmillan Company, 1944).

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CHAPTER XXIV

THE SECONDARY SCHOOL

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Introduction

No definite pattern of secondary education. It is the purpose of the present chapter to direct those interested in the secondary school to a study and analysis of the high schools of this country at the present time. These schools do not conform to any definite national pattern. However, there are marked similarities in the underlying purposes of the secondary schools in all sections of the country as they are being modified to meet the challenge of a society which is bewildered by its own haphazard attempts to adjust to postwar social, political, economic and industrial conditions at home and abroad, and the interests, needs and potentialities of adolescent boys and girls. There is no national department or bureau which promotes uniformity in the educational program. The Office of Education institutes surveys and carries on research which is needed and often requested by the public schools, and these findings and data are made available to those responsible for the administration of the schools. It is to be expected, therefore, that differences in administrative units, curricula, teacher certification, extracurricular activities, guidance, and personnel work will appear from state to state as faculties of high schools freely elect to develop

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procedures and experimental programs for the realization of a philosophy of education which is in harmony with legislative requirements. There are a number of forces such as the radio, the press, professional publications, the interchange of teachers between systems and professors of education between universities, and numerous educational conventions which appeal to teachers as professional groups and as special subject-matter groups which are constantly promoting uniformity through an interchange of ideas and a study and analysis of challenging practices.

A dictator, who organizes a society through the use of force and violence, has a definite set of educational objectives and these can be made effective since the teaching corps, curriculum materials, teaching procedures, etc., can be effectively regimented to the specific attainment of these goals. Objectives, learning experiences, and teaching procedures are prepared by the government for the purpose of realizing a fanatical acceptance of the ideology of the leaders of the government. A democratic procedure, on the other hand, studies social values in terms of the people and many participate in the formulation of the objectives. These objectives are usually stated in terms of the present economic and social situations and must be constantly modified so that they will be meaningful to the American people and significant to pupils, teachers, and administrators who are endeavoring to keep their educational programs abreast of the times. The problem is really three-fold: First, what constitutes a good life for the American people as a whole and for the individual members of a democratic society? Second, how can the secondary schools achieve all of the basic principles which can be subsumed under a general term such as the "good life"? Third, how can these basic principles be further analyzed so that they will have meaning for classroom teachers in all areas of learning and for administrators of all levels and units? Some significant professional work has been accomplished already in the attack on this problem. The Commission on the Reorganization of Secondary Education in 1918¹ proposed the following basic principles: Health, command

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of fundamental processes, worthy home membership, citizenship, vocational efficiency, worthy use of leisure time, and ethical character. Later publications of this commission indicated how these principles could be realized through the teaching of the various subject-matter fields. The Educational Policies Commission formulated the following basic principles of living in democracy in their publication, *The Purposes of Education in American Democracy*,² which was issued in 1938: self-realization, human relationships, economic efficiency, and civic responsibility. This book also indicates the important objectives which should be subsumed under each of these for the guidance of the teachers and administrators. But it should not be assumed that the professional work of teachers in this country has been done by commissions. Any faculty which attempts to use these basic principles in the education of youth will find that there is much to be done before learning experiences for the realization of these goals can be selected and evaluated in terms of the objectives of the various areas included in the curriculum of the school.³ The evaluating of secondary schools, using the evaluation criteria which were developed through the co-operative study of secondary school students, has rendered a great service to secondary schools and faculties in appreciating this problem.⁴

It is not intended that the students of education should accept the thesis that teachers and administrators are free to advocate every progressive theory proposed by someone in the fanatical fringe of the profession. Neither is it intended to leave the impression that teachers and administrators are liberals and progressives who are constantly seeking to use their students as guinea pigs in so-called experiments in child growth and development. Rather, it is important that students realize that teachers and administrators in the public schools are, in general, conservative groups who accept modifications for their own school system only after extended experimentation in teacher-training institutions and private schools.

Any book which develops the evolution of the second-

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ary schools in this country⁵ will present the forces which have effected significant changes in the high schools and it will be apparent that the secondary schools have been dynamic and susceptible to change over an extended period of time. If an extended historical period is selected, it will be noted that many changes which were initiated locally in the beginning of a particular epoch have become national in character at the close of the period and the secondary schools have attained certain new national characteristics. However, if one particular modification should be studied over a relatively short period of time, it will be evident that high schools are very heterogeneous institutions in the various regions and states and throughout the nation as a whole. If the reader could visit secondary schools in New England, the Middle Atlantic section, the Southern area from Florida to Texas, the North Central states, the Rocky Mountain states, and Pacific coast regions, he would be impressed with the number of different administrative units at the secondary level, various types of curricular offerings, variations in the standards established for the certification of secondary school teachers, and unrelated attempts at pupil adjustment through the organization and administration of extracurricular activities, guidance programs and personnel work. Progressive tendencies, conservative practices, and curious patch-work programs including both progressive and conservative elements will be found in all aspects of secondary education in all of these regions.

Secondary Education is More Democratic Today

Democracy is on the march. While it is true that legislation to the effect that all children must remain in school until they have reached a certain age or have completed a definite number of grades is affecting high school enrollment, two other significant factors should be recognized. The first of these is that parents of all social and economic classes are demanding that their children shall have an opportunity to complete at least a secondary-school educa-

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tion, and the second is that education has been organized and articulated so that eligible pupils are attracted to the secondary school. As a result of all of these factors more and more of the prospective citizens in this country are securing a better background of facts and information for an understanding of the theory of democracy and an appreciation of the thinking, feelings, and aspirations of the American people, and participation techniques so that they can assume the responsibility of the voting citizen in a representative government. As the secondary school becomes more democratic in fact, it must become more democratic in spirit. Since nearly three-fourths of the young people of high-school age are now enrolled in secondary schools, it is imperative that teachers, pupils, parents and administrators realize that the educational goals for any period should be established in harmony with the social, political, and economic conditions existing at that time and should be modified to meet new social, political, and economic situations as they arise. It is impossible for any people to state objectives for their educational program unless they have a knowledge of the forces which have shaped the cultural heritage of the nation and produced the present cultural patterns as well as indicating the guide lines which may become trends in the future modifications of the basic patterns.

The United States is committed to democracy and a progressive evolution of social and political institutions. The demands upon education are greater than in any other country, even in the other democracies. The American way of life is not predicated on the theory that the people shall accept an ultimate philosophy or fixed social and political ideas and attitudes, but rather that they become capable of adjusting to constantly changing economic, social, and political situations. As long as the American people explore the potentialities of representative government in realizing the democratic way of life, there will be a continuous but fluctuating emphasis upon the responsibilities of the individual, and the local, state and national governments, in the reformulation of policies and proced-

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ures in all areas of human endeavor. It is often stated that secondary education is the right of every child in this country; it is more than a right of the individual prospective citizen; it is an indispensable and inherent aspect of this democratic society if the American people are going to be able to think through the increasingly intricate problems of the democratic way of life. Madison's statement that "democracy without education is either a farce or a tragedy" constitutes a fundamental thesis for educators in this country today.

Any program of education for a democratic way of life must be developed in accordance with a philosophy which emphasizes that democracy and education for democracy are both aspects of associative living. Democracy is more than a formal governmental pattern; it is living together on a local, state, and national scale. Education for democracy is more than formal subject-matter teaching; it must be based on the association and cooperation of pupils in formal and informal school relationships which will make it possible for schools to serve the needs of democratic society and the needs and potentialities of the individual members of that society. This does not imply that education for the democratic way of life is soft education; living in a democracy implies a disciplined citizenry, each member of which is trained to make his contribution, but with individual effort so organized that there is always unity in the plans and in the results attained in the society.

Horizontal expansion of the secondary school. In order that the secondary school be a really significant factor in the realization of the democratic way of life, it is essential that education at this level be made available to an increasing number of eligible adolescents in this country. This broad statement implies, first, that all classes, creeds and races are expected to attend since the taxation of all of the people will furnish curricula, facilities, staff and administration, and second, that the staff and administration will so organize and develop the curricula and facilities that pupils, having all types of interests, representing all levels of ability and sensing needs in remote areas of learn-

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ing experiences will find worthwhile and stimulating activities in these schools.

There are more than twenty-five thousand public and private high schools of various types, although there has been a marked tendency to establish union high schools and organize consolidated districts. This year, more than eight million pupils, representing about seventy per cent of the adolescents in the United States, are enrolled in the secondary schools throughout the nation. The present century has not reached its goal of providing formal educational experiences for all of these people, but tremendous strides have been made in the last fifty-two years. These statistics become even more significant if they are further analyzed in comparison with other data as follows: (1) more than six per cent of the entire population of the United States is enrolled in the secondary school; (2) nearly seventy per cent of the pupils of high-school age are enrolled in these institutions and in certain cities and communities enrollments approach one hundred per cent; (3) the number of high schools represent an average of approximately five hundred and twenty per state, ranging from the small rural high school with less than one hundred pupils to large city high schools which enroll several thousand students; (4) the number of high schools and the number of pupils in the United States probably exceed comparable statistics from all of the rest of the nations of the world combined.⁶

The problem which is presented to citizens, parents, and teachers through these statistics cannot be solved by any simple formula based on larger buildings, more classes in the same subject areas, and additions to the staff of teachers who have been trained in narrow academic fields supplemented only by a smattering of professional study. These additional pupils have presented new and different interests and needs and a wide range of abilities. Limited offerings, with an emphasis on academic work and college preparation, were reasonably satisfactory for the secondary school during the last decade of the nineteenth century when pupils had comparable goals and curricular needs.

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However, staffs in these schools during the twentieth century and particularly during the last few years have been challenged by the necessity of adding new curricula, different levels within the curricular offerings, new activities of various and sundry kinds, new methods of teaching, and a counseling service for every pupil.

The horizontal expansion of the high school to meet the challenge of pupil interests in the various vocational, business, and professional fields, pupil abilities ranging from sub-normal levels to those approaching the realms of genius, and pupil attitudes based on varying degrees of emotional stability, is indicated in the additions which have been made to the curriculum, modifications within the various curricula, extensions of the extracurricular program, and developments in the areas of group guidance and personal counseling. Additional courses have been organized principally in the vocational fields although new offerings have been developed and are now being presented in the old academic curricula. These vocational subjects represent an additional spread of the work offered in the cosmopolitan high school, but they have also been organized into curricula for vocational high schools where the courses are all highly specialized. When these vocational curricula have been organized, supported, and supervised in part, through the cooperation of the national government and the state departments of vocational education with the local school districts, common objectives, learning experiences and standards have been established for these courses.

There are a number of examples of supplementary forms of secondary education which have been developed to meet the needs of the large numbers of youth who are now registering in high school. These auxiliary types include the part-time cooperative plan and the continuation, evening and summer schools. In addition, many high schools are organizing extension work which usually takes the form of correspondence courses. All of these plans are being tried in various high schools, but at present they have not been sufficiently extended in practice to permit

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final evaluation of their contribution to the general scheme of meeting the needs of these young people. There appears to be a growing interest on the part of school people for the part-time cooperative scheme of assigning pupils to school work for a part of a day and to business or industry for the remainder of their scheduled program. Sometimes it is the practice to assign them to school for a number of days or weeks and to business and industry for a similar period of time. There appears to be justification for the assumption that transition from the part-time to full-time employment will be easier and more certain than from full-time school to full-time employment. The large number of high-school pupils engaged in part-time work emphasized for the school people the necessity of relating the work in the school and the work on the job. The possibilities of providing opportunities for work-experience to all pupils is being carefully studied and evaluated.

The academic curriculum of the secondary school also presents evidence of the horizontal expansion program necessitated by the increased enrollments. There are a number of interesting trends in the modifications being tried out in these areas, any one of which may become the dominating one in the near future. A trend, which appeared almost as soon as the educators began to sense that a new clientele was present in addition to the old homogeneous group, can be studied through the constantly increasing number of courses offered in each of the academic areas. English now includes public speaking, drama, journalism, debate and many other courses in addition to composition, rhetoric and literature; science teachers are adding courses in general science, consumer science, geography, and senior science; courses in community life, resources, American problems, and personality adjustment are being developed in the social studies field; both foreign language and mathematics teachers are experimenting with general courses; and many new courses are being organized in music, art, home economics, commercial education, distributive education and industrial arts.

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A second trend is indicated in the present curriculum improvement program which is based, in part, on the theory that courses can be developed so that pupils of different levels of ability can proceed at their own rate and attain mastery of significant learning experiences for themselves. In some schools, classes are being divided into homogeneous sections, such as X, Y, and Z, in certain subjects, while in other schools, the classes are retained as unselected classifications and the teacher attempts to meet the needs of all of the pupils through individualized instruction. All of these innovations are presenting challenges to the teachers and administrators such as the formulation of objectives for groups and pupils, evaluating and grading the work of the pupils, and making distinctions between certifying them for graduation and for admission to institutions of higher education.

The most recent trend at the secondary level attempts to solve the problem of adjusting a heterogeneous group of pupils to the curriculum by organizing core curricula which include the learning experiences formerly allocated to a number of subject-matter areas and allotting two or more periods per day for the pupil to study and work in the core program. The rest of the day is devoted to work in the regularly organized curricular and extracurricular activities. Social studies and literature, and social studies and home economics are two combinations which are receiving considerable attention. Music, art and science are other fields which have been included with various combinations in the core curriculum. Guidance either on an individual or group basis, has been emphasized in the core programs.

Vertical expansion of the secondary school. The significant problem of vertical expansion can only be discussed briefly at this time, but the student of secondary education should keep in mind that the vertical expansion of the secondary school is being based on studies in the fields of psychology, sociology, and health; is affecting every unit of the educational system such as the elementary school and university; and is modifying relationships between the school system and the general public in all types of communities.

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It is safe to say that the American people are favoring a shortened elementary school concluding with the sixth grade. Of course this program has been extended in many communities by the addition of one or more years of kindergarten work preceding the admission of pupils to the first grade. It is also reasonable to assume that most of the professional work of the colleges and universities has been advanced to the upper years and that there is little difference in the course content or the methods of instruction between the senior high school and the first two years of the institutions of higher education. Thus, the high school has been extended from the three-year institution of the first half of the nineteenth century and the four-year program of the last half of that century to various modifications of the eight years included between the sixth grade and the fourteenth grade. Several patterns of extended secondary education have been developed and merit consideration at this point. There is insufficient evidence today to indicate that one form of organization is superior to another for a particular type of community. Educators must judge for themselves after they have considered the size of the community, wealth of the community, and the potentialities of the various types of schools, such as the four-year high school, the six-year high school, the junior-senior high school which includes three years for each unit, and the four-four secondary program which is composed of grades seven to nine and eleven to fourteen inclusive.

There are three additional types of modifications which are important enough to be considered in any preliminary study of the reorganization of the secondary-school curriculum. First, the curriculum of the seventh and eighth grades of the elementary school is being reorganized without taking these grades from the elementary school or including them in a new unit with the ninth grade. In some of the larger school systems, seventh and eighth grade centers are being established at some old elementary school, which has been remodeled to include a gymnasium, library, assembly room, etc., and provisions have been made to

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add some laboratory and shop courses. The seventh and eighth grade children from a number of surrounding elementary schools are transferred there for the work in the upper grades of the elementary school. Secondly, the thirteenth and fourteenth years are being included in a number of revised administrative and teaching programs for the secondary school. These include the four-four, the three-three-two, the four-two, etc. In connection with this movement the functions of the junior college, its administrative organization, its curriculum and its financial support are all challenging problems today. In the third place, a number of four-year high schools are being expanded to include one additional year. This program was begun during the depression when many high-school graduates returned to their schools for additional courses and training. The possibilities of adding a regular fifth year with specific curricula in commerce, agriculture, home economics, etc., which will adjust pupils to activities of the community, and many elective courses of cultural value in various academic fields is appealing more and more to administrators and teachers in the high schools today.

It is interesting to note that the vertical reorganization of the secondary school developed as a result of the desire on the part of certain educators to reduce the number of years included in the elementary school and high school so that the prospective college student might enter upon his collegiate and professional work at an earlier age. A number of the early junior high schools were pointed toward the realization of the objectives of the committees reporting on the economy of time, and credits earned in the junior high school in commercial work and foreign language were counted toward graduation from the senior high school. However, as these schools increased in numbers and their programs were more carefully studied, the tendency to enrich the curriculum rather than to strive to curtail the time allotted to the secondary school became more pronounced. During the last decade, economy of time has been defined in terms of curriculum improvement, adjustment of teaching procedures to different ability levels, and the effective

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socialization of the pupils, rather than stimulating pupils to take more specific courses, meet matriculation requirements and enter institutions of higher education while they are still immature socially. In recent years, the involvement of the United States in the war and the lowering of the draft age brought the old theories of those who advocated economy of time in terms of shortening the secondary period to the front again. In addition, college administrators have proposed that four years' work can be accomplished in two and one-half years through utilizing the summer quarters and starting the collegiate work at the completion of the high school in June.

The secondary school is retaining more pupils in school. It has been indicated that larger percentages of the total population and of the young people of high-school age are being enrolled in the secondary schools. It is proposed to consider briefly at this point the power of the high school program to retain them. Unless the total enrollment in the high school at any one time is corrected by a study of the elimination of pupils from grade to grade it is apt to be very misleading. However, if high school enrollment is studied over a period of years so that progress from grade to grade can be noted and the percentages of retardation and elimination at each grade level calculated, the results will be a truer picture of the secondary school in its relationship to American life.

A conservative conjecture, based on the data secured in previous surveys of education in this country, is that more than eight million boys and girls will be enrolled in both private and public secondary schools in this country during the present year. This will approximate seventy per cent of the young people of high school age. Of this number more than two and one-half million will be freshmen and less than one and one-half million will be graduating seniors. Since these figures will remain reasonably consistent over a four year period, it is indicated that at least one million pupils will be eliminated or will withdraw from the secondary schools during the next four years. In other words, approximately fifty per cent of the pupils entering

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the freshmen class this year will graduate from high school four years hence. If any year in the elementary school is taken as the base year and an estimate made of the number of those pupils finishing high school, the percentage would be found as appreciably less than fifty per cent.

Another perspective is obtained by considering the number of pupils in high school in relation to the number of the pupils in the school system. If there were no elimination or retardation in the eight-four school system, one-third of the school population would be found in the high-school grades. There is great variation among the states in this respect since the average for the entire country is considerably less than twenty-five per cent, but the range extends from eleven per cent in Mississippi to more than thirty per cent in Oregon. The alarmist will find little comfort in these figures, however, since only three per cent of the school population was in high school in 1900, and approximately ten per cent was found in high school in 1920. If the senior class in the high school is compared to the freshman class, the following interesting figures are obtained. In 1910, there were more than three and one-half times as many freshmen as seniors in the secondary school; in 1930, there were slightly more than twice as many beginning pupils as graduating pupils; while in 1938, this relationship had been reduced to 1.6 in favor of the freshman class.

Secondary School Curricula are Being Studied and Revised

Lay members of society, as well as professional educators, are spotlighting efforts to revise the curriculum for the adolescent. This situation has been produced by very unusual and stimulating conditions. The first of these conditions has been indicated in the preceding section as the phenomenal increase in high-school enrollment and the consequent demand on the part of patrons that learning experiences be developed which will have the interest of these adolescents and serve their needs as educational activities while in school and promote their adjustment in

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a changing world at the time they leave the secondary school. Educators, who are studying the basic problems posed by these increased enrollments, such as individual differences, mobility, financial and economic backgrounds, etc., are convinced that much of the old academic curriculum has become deadwood for the large percentage of the high-school pupils and should be replaced by teaching materials with social and civic values, pre-vocational significance, and even specific job training in the upper levels.

Another condition has already been implied in the discussion to date. Changes in American life and living, due to inventions and technological developments, have come upon the people with unbelievable rapidity during the current century and have affected new standards of living. Better homes, higher wages, shorter hours, preparation for the full enjoyment of leisure, elimination of want and disease through the development of more adequate plans for the production, distribution and consumption of the essential commodities listed under the headings of food, shelter, and clothing, are now slogans for the realization of the democratic way of life. If the student will consider the changes in society which have occurred during the present century and compare these with the changes during the last three centuries, he will have a definite concept of the difficulties involved in keeping the schools abreast of the times and preparing pupils for adjustment in society as they leave the school.

Important trends in the development of the curriculum. The first high schools were highly selective and enrolled only a very small percentage of the population. The subject matter included in the curriculum was decidedly academic and organized to meet the matriculation requirements of institutions of higher education. As the effects of the industrial revolution began to emerge into the technological maelstrom of the twentieth century and the scattered, selective high schools began to grow in enrollments by the hundreds of thousands and in numbers at the rate of 365 per year, the curriculum was scrutinized by the teaching personnel to determine if the grade and level placement

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were correct in view of the new units which were being established in many of the school systems and to determine to what extent learning experiences might be revised to ameliorate the situation produced by the increased enrollments at all grade levels.

It is not surprising, therefore, to find that curriculum makers in the first part of the present century devoted most of their energies to statistical studies of the present and future use of various aspects of the subject-matter experiences found in the schools. The traditional, academic curriculum was accepted for the most part; the problem was one of reorganization so that generally recognized objectives in a teaching field might guide teachers in standardizing their work, while modifying to some extent the learning experiences of various groups of pupils in the same class striving for the same objectives, and formulating new evaluation techniques. There was, even in these early days, an increasing demand for a consideration of the interests of the child in the formulation of an educational program. Due to the scholarly writings and speeches of John Dewey, who profoundly influenced this developing concept of the child-centered curriculum, and the propaganda campaign of the Progressive Education Association for a study of the growth of the child mentally, physically, and socially as he actively participates in real life situations in the school rather than in the routine of formalized pre-planned activities, teachers and university professors of education, began to give lip-service to the slogan that the school and its curriculum should be adjusted to the child rather than forcing the child to adjust to a preordained program as far as he as an individual is concerned. The technological development, to which reference has been made, forced educators to take cognizance of the social evolution which was going on about them. Training for social and civic efficiency now has an important place in the thought of those who are working with problems in the modernization of the high school. At the present time, the curriculum, consisting of highly organized teaching materials, the child, and society are the three most important factors in cur-

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riculum improvement. None of these can ever be ignored by the teachers and administrators who are interested in formulating a program of studies for the better social, civic, vocational, and healthful adjustment of pupils in society.

Probable future developments. The secondary-school curriculum, in spite of the modifications effected during the last two decades, remains largely academic and unintegrated with the social, economic and political world. The pupil is very apt to think of the living and learning in the school and living and learning in the home and in the community as two different types of activities; the academic-minded may be challenged by classroom success and the prospect of future educational achievement, but a large majority of present-day high school pupils will find little of interest or of significance in terms of their needs as citizens in the community. The curriculum is not being adjusted to individual differences although this lack of variations in objectives, teaching materials, methods, and grading procedures based on individual needs, interests, abilities is resulting in the failure of thousands of boys and girls. Some schools have developed elaborate administrative machinery for the attainment of pupil success, irrespective of needs, interests and abilities, but have failed to reorganize learning experiences and modify concepts of grading achievement to permit the new programs to be effective in the lives of the pupils.

A sufficient number of teachers and administrators are becoming alert to these problems to justify the statement that the immediate future will witness further studies of individual differences, maladjustment of pupils, remedial work in all the basic subjects at the secondary level, special methods of classroom instruction in various fields, extra-class activities and supplementary school activities, social and emotional attitudes, and the mental and physical health of the pupils.

These professional activities are resulting in two diametrically opposed types of secondary school curricula at the present time. The first of these types is illustrated by

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the system which is constantly increasing the number of courses offered in the secondary units in order that new activities and experiences may be offered to the pupils. The pupils must select new courses in addition to or in place of the old, regularly established courses in order to participate in the vitalized curriculum. For example, the social studies now include sociology, psychology, conservation of resources, personal achievement, community life, etc., in addition to the regular courses in history, such as World History, American History, Civics, and Problems in American Democracy. Similar examples could be presented from the fields of English, science, mathematics, home economics, commercial education, industrial education, music, and art. The number of different courses offered in the high schools of the United States, allowing for the inevitable duplication in titles, runs into the hundreds.

The second innovation has tended to condense subjects within fields and even to reorganize several fields into one broad field. There are four technical terms⁷ in current use as a result of the experimentation along these lines. The first of these terms is *fusion* which is used to describe a three or four year sequence of the social studies, English, science or any other field without adhering to the discrete courses which were formerly offered in that field. There are no separate courses, such as World History, Sociology, American History, Civics, etc., in the social studies but a unified course which includes the interrelating of learning experiences from all of these courses in the realization of the objectives of the course of study in this broad field. *Correlation* is an expansion of the concept of fusion to two or more fields and can be illustrated by a unified course which includes the learning experiences in the fields of social studies and language arts. Experimentation in correlating fields up to the present time has produced significant results only in the correlation of two discrete courses from different fields such as American History and American Literature. Teachers may be challenged in the future to a further extension of their efforts to unify related activities and experiences from different areas.

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While both of these trends can be spoken of as integrating influences in curriculum development, the term *integration* has been specifically reserved for those experiments which have been based on the assumption that the entire curriculum should be developed for the realization of the basic social functions of American life. When these basic social functions have been determined, the discrete aspects of the curriculum can be introduced as they serve to indicate learning experiences essential in the full and complete understanding and appreciation of these basic social functions of living. Intelligent cooperation among teachers in all areas is necessary in relating the learning experiences in their areas to those in all other areas in the realization of these goals for the various levels in the school system. As the pupils advance into the more specialized work of the high school, the courses are retained in definite form but the objectives are determined by the basic social functions and the relationship of courses in different areas is being studied so that duplicating materials can be eliminated and pupils can relate all of their learning experiences in making progress toward certain definite goals.

The fourth term with which students of secondary education should be familiar is *core curriculum*.⁸ The basic human relations and social activities are organized into a curriculum which is required of all pupils for two or more periods a day. The work in this curriculum is offered by core teachers or by teachers from various subject-matter areas depending on whether the learning experiences are integrated or correlated. In any case, there are highly specialized courses which are offered outside the core and present extensive opportunities for the pupils to realize vocational and pre-professional interests.

The trends in curriculum improvement indicate that the teachers and administrators are endeavoring to make the school an instrumentality of society in this country today and an institution which will realize its responsibility in the training of the individual child so that he will be adjusted in an evolving society as an effective social, economic, and political force.⁹ In a society dedicated to the

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democratic way of life, the school will also stress the mental and physical health of the pupils, the economic and vocational effectiveness of each, and the social adjustment of all through participation in desirable activities for the promotion of good habits and positive attitudes.

Financing the Program of Secondary Education

A casual survey of the United States today indicates that four units of government have played a part in financing a program of secondary education—the national government, the state government, the county, and the local district. With the exception of the national government none of these units presents any uniformity in the procedures developed in the allocation of funds to the secondary school. It is not possible in this chapter to consider those differences which exist among sections such as the North and the South, regions such as the north central and the inland empire, and states. It is sufficient to point out that such differences exist and to indicate important trends in the financing of the secondary school.

The national government. The national government has indicated its interest in education since its inception in 1789, and even before the adoption of the Constitution in the Ordinance for the survey and establishment of the Northwest Territory. In 1785, the Northwest Territory was surveyed and the sixteenth section of every township was reserved for education and this practice was continued by a general statute of the federal government after 1789. In 1802 a grant of federal land was made to the state of Ohio for the support of its schools with the understanding the state government would not tax other federal lands lying within the border of the state. All other states since admitted to the union have worked out similar agreements with the national government, except that the number of sections in each township allocated to education has been gradually raised from one to two sections and recently to four sections. In addition to these outright grants of land for education several of the states have received grants of

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marginal farming land which they have been allowed to utilize for school purposes.

The state is permitted to use the funds secured from the sale of these sections of land for any type of education. In general, such funds are placed in a permanent school fund and the proceeds used for the support of the public schools. Even though the states have been allocated five per cent of the funds secured from the sale of all public lands and the forest reserve grant and the mineral royalty grant in addition to the basic grants mentioned in the preceding paragraph, it has been necessary for them to raise the major part of the funds needed for the support of their educational systems.

The Morrill Act of 1862, which provided that thirty thousand acres of federal lands for each senator and representative from each state in Congress be granted to the states for the establishment of colleges offering courses in agriculture, mechanical arts and military science, represents the last allotment of lands from the public domain for education. Since that time the institutions established by the Morrill Act have been aided by grants from federal funds and these have been secured through taxation. All of the acts of Congress relating to education at the secondary level since the opening of the twentieth century have carried grants of money for the development of the program.

The first law passed by Congress which directly affected the secondary school was the Smith-Hughes Act of 1917 providing for the establishment of vocational education in those states willing to match federal funds with state and local funds. These funds could be used for the organization and development of courses in home economics, agriculture, and trade training in secondary schools which were willing to meet the rather rigid standards imposed by the act. A federal agency was established to supervise the administration of the program and supervisors were attached to departments of education in the various states to guarantee that standards relating to the training of teachers, length of class periods, and home projects were maintained. The amount of money provided by the Smith-Hughes Act has

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been nearly trebled by subsequent legislation¹⁰ until today more than twenty-three million dollars are allocated to the states on the basis of population and guaranteed minimums. The most recent legislation in this field has been through the George-Dean Act of 1936, which provided additional funds and added the field of distributive education to those included in previous acts.

With the inauguration of the Roosevelt administration in 1933, the national government began to assume greater and greater responsibility and authority in the social and economic well-being of the people as well as their educational opportunities. Of course, many of the programs developed had only relief goals, but if one takes the long view of the relationship of the national government to education, it is impossible to ignore the new relationships which have been established as a result of the organization of relief measures by the federal authorities which had educational activities and outlets.

The four remaining programs which will be discussed have a common basis in that the government was primarily interested in relief measures and concerned secondarily with the educational aspects of the programs. First, during the depression thousands of teachers were unable to secure positions and were on relief rolls. Educational programs, involving research, nursery training, emergency education at the college level, and worker's advanced training, were established and the instructors drawn from the relief rolls. Second, thousands of boys and girls who were highly intelligent but who could not attend high school or college during the depression years were given a small monthly wage for doing socially desirable work and encouraged to remain in school. The National Youth Administration did not remove people from the relief rolls, but it did prevent the labor market from being further overcrowded through making it possible for really capable students to continue in school. Third, the tax rolls became so depleted during these depression years that schools in many districts had funds for a few months only instead of the regular term and teachers were facing unemployment and relief registration.

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The national government supplied funds to many of these districts so that the children might have an opportunity for an education and the teachers an opportunity for employment. Fourth, one of the major programs of the national government for the relief of unemployment was the allocation of funds for the construction of public works. Among the projects regarded with favor by the Works Progress Administration was the granting of loans to school districts for the construction of buildings, and in some cases all or a part of the money was granted outright to the district. As a result of this policy, most of the building, renovating, and remodeling which has been in evidence in the secondary schools has been carried on through government grants.

The relationship of the national government to education will be one of the most pressing problems in the evolving democratic program of the future. At present, it appears that the national government has been drawn into this undetermined relationship by economic forces rather than interest in controlling the scope and directing the development of education for the masses. However, with economic conditions less acute, educators are displaying a tendency to inquire more carefully into the intentions of the national government concerning the development of a new policy toward education for the merging of these new government supported programs with the state and locally controlled school districts. The problem of the future is the increase of support by the national government without increasing the control of the school program by the national government.

Equalization of educational opportunities. The major trends in providing equal educational opportunities for all children are in evidence in the states and the local districts although the contributions of land and money by the national government for general, agricultural, and industrial education can be emphasized again at this point since they have a real influence on this problem. The immediate future will see the development of a more comprehensive high school system throughout the nation, attended by an ever increasing percentage of the young people of high school

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age, outlined by legislative acts, developed by policy making rulings of state boards of education and supported by both state funds and local taxation. The national government will undoubtedly show its interest and approval of this development by passing some laws relating to the extension of the scope of the program and the support of the non-academic work, but the major efforts in studying the adjustment of children to school and life situations and the financing of this expanding program will be contributed in the states and local areas. There will continue to be great variations among states in the realization of this program, but the attitude of American society toward this problem will be expressed in more stringent laws requiring the people to provide more adequate educational opportunities and compelling young people to remain in school for a longer period of time.

NOTES ON THE CHAPTER

1. United States Office of Education *Bulletin*, No. 35, 1918.
2. Educational Policies Commission, *The Purposes of Education in American Democracy* (Washington: National Education Association, 1938).
3. Two recent books which have made a contribution in this field are (1) Corey, Everett, Hand, and others, *General Education in the American High School* (New York: Scott, Foresman and Company, 1942). (2) Educational Policies Commission, *Education For All American Youth* (Washington: National Education Association, 1944).
4. Cooperative Study of Secondary School Standards, *Evaluative Criteria* (Washington: American Council on Education, 1940).
5. See E. M. Draper and A. C. Roberts, *Principles of American Secondary Education* (New York: D. Appleton-Century Company, 1932), chap.'s I, II, and III.
6. These figures become even more astounding if compared with the statistics of 1890. At that time, less than seven per cent of the young people between the ages of 14 and 17 were enrolled in the secondary school. The student of secondary education should refer to the biennial surveys of education in the United States which are published by the Office of Education, Washington, D. C. The statistics presented in this chapter will need to be modified from time to time as new data and statistics are presented by the Office of Education.
7. Discussions of these terms with a different emphasis can be found in Howard Spears, *The Emerging High School Curriculum and Its Direction* (New York: American Book Company, 1930); and L. Thomas Hopkins, ed., *Integration: Its Meaning and Application* (New York: D. Appleton-Century Company 1937).
8. The most recent and best discussion of the core curriculum is found in *Education for All American Youth*, published by the Educational Policies Commission (Washington: National Education Association, 1944).

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9. For the various aspects and developments of curriculum study, see under *General References*.
10. George-Reed Act, 1929; George-Ellzoy Act, 1934; George-Dean Act, 1936.

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CHAPTER XXV

HIGHER EDUCATION

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Higher education in America is conceived as including, with but few exceptions, those post-high school instructional activities which generally take place on or about the campus of a college or a university. The exceptions, however, include a wide range of practices and a variety of institutions. Not all colleges, for example, require students to complete four years of high school work as a prerequisite to entrance. There are, moreover, certain institutions calling themselves "colleges" or "universities" which have sometimes appeared to be more interested in profits than in the maintenance of academic standards. Some commercialized institutions, such as a few of our business colleges, have performed notable service, though frequently not at the college level. Others, including a great many business colleges, follow unscrupulous practices and may in no sense of the word be conceived as institutions of higher learning. On the other hand, we find a number of our most highly respected universities offering instruction (usually through extension classes and home study courses) of high school level or of such type as the university itself refuses to recognize for degree credit. Thus there is lack of complete agreement, not only as to what constitutes higher education but also as to what institutions may legitimately be con-

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sidered to be engaged therein. A glimpse at the historical background of our colleges and universities will be revealing from the standpoint of their nature as well as from the standpoint of their functions.

Historical Background

Education is as old as man. Even the most primitive peoples found it necessary to give instruction to their youth in how to hunt, fish, build shelters and construct the simple tools and weapons essential for life and safety. But higher education is a relatively recent development. It necessarily had to await the accumulation and, to a degree, the crystallization of other phases of culture. Lunden says, "... there must be a certain amount of social substructure present in any society before a university appears."¹

Even so, we find the origins of our modern universities and colleges rooted as far back as ancient Greece where, following the Peloponnesian Wars, a type of school developed which has exerted an important influence upon higher education as we know it today. These early Greek philosophical schools, included among which were the Academy of Plato and the Lyceum of Aristotle, were established between 386 and 300 B.C. and were destined to be imitated throughout the greater part of the ancient world. Schools were established at Pergamum, Tarsus, Alexandria, Antioch, Nicomedia, Rhodes, Byzantium, Marseilles, Rome and elsewhere. Various factors influenced these developments, the most important of which were the growth of trade and great cities, the benevolence and support of various monarchs, the appearance of some of the most brilliant men of all time, and, as Professor Monroe has said, the need for ability to discuss "social, political, economic, and scientific or metaphysical questions."²

Some of these early universities have played unique roles in the determination of the course of history. The University of Alexandria, established 332 B.C., became a melting pot for Semitism, Hellenism, and early Christianity. A great library was founded and was said to have possessed

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some 700,000 volumes at the time it fell into the hands of the invading Mohammedans in 640 A.D. Its destruction by the first Caliph is said to have provided fuel for 4,000 public baths for a period of six months.³ Alexandria is noted for the works of such great thinkers and scholars as Euclid and Archimedes, and for early progress in measuring the diameter and circumference of the earth, the distances of the sun and moon, and the precession of the equinox. Here also was formulated the Ptolemaic theory of the universe. What remained of the fruits of intellectual activity in and around Alexandria following the invasion was transferred to the Saracens, later to be reflected in educational developments at Bagdad and Cordova.

Space does not permit the discussion of the details of developments in the various centers of learning in the ancient world. The University of Athens was closed in 529 A.D. by Justinian, a Christian emperor, on the ground that it was a center of pagan influence. A similar fate befell various other schools in the Greek world. A thousand years later centers of learning began to develop in Europe, but the scholars of that day adopted much of the form, spirit, and philosophy of the Greek schools, and Plato, Aristotle and other great thinkers of the ancient Greek world once more inspired men to intellectual heights. During the darkness of the Middle Ages the monastic schools served to preserve and transmit learning and the Saracenic schools brought much of the ancient learning to Europe via Spain two hundred years before the Renaissance.

The development and spread of higher education in Europe throughout the centuries that followed have been the subject of numerous volumes written in recent decades. It is not the purpose here to summarize the advancements made in this period. It is interesting, however, to note that there are in existence today five institutions of higher learning which were established in the 12th century, thirteen which were established in the 13th century, and nearly one hundred altogether which were founded prior to the year 1600. The University of Paris was established before the French nation and the University of Heidelberg antedates the German Empire.

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Development in the United States

By the end of the 16th century institutions of higher learning were flourishing in most of the nations of the western world. But it was not until 1636 that a comparable development began in this country with the founding of Harvard College. At the end of the 18th century there were less than 25 such institutions in the United States. The period of rapid expansion did not begin until the 19th century.

As a political democracy the United States necessarily relied heavily upon the extension of education as a supporting factor in the success of the government. Great men like Washington, Jefferson, and Madison strongly emphasized the importance of a general diffusion of knowledge and popular information as a condition essential to the success of the Republic. The Protestant church also exerted an influence strongly favorable to the promotion of education, maintaining that men must be educated not only in order to govern themselves intelligently, but also that they might read the Scriptures and become religious leaders. Moreover, it was a tenet of democratic philosophy that every young person was entitled to an education commensurate in degree and quality with his ability to profit from study.

The expansion of higher education was at first promoted mainly by religious or denominational effort; later state initiative became more prominent. Great impetus to the expansion movement was provided by the federal government's land grant policy beginning about 1787 with the granting of two congressional townships for the purpose of a university. The Morrill Act of 1862 gave incoming states lands for the support of schools of agriculture and mechanical arts, many of which were established soon thereafter, and similar support was given for normal schools in many of the states. Thus developments which had taken some 800 years in the case of European universities sprang almost suddenly into mature form in the United States, largely within the last one hundred years.

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All told, there are now some 1400 to 1500 public and private universities, colleges, and normal schools in this country. Their enrollment before our entrance into World War II numbered nearly a million and a half students as compared with a total of less than 160,000 in 1890. The rate of increase during this period has been approximately 50 per cent for each ten year interval, save for the temporary effects of the two world wars. No greater evidence could be found of America's faith in higher education than the enormous increase in the number of institutions and the geometrically progressive enrollment figures.

The Purpose of Higher Education

Every social institution has a reason for its existence, but we find much disagreement through the centuries and especially among contemporaries as to the true purpose of higher education. Plato believed that education should develop the beauty and perfection of the body and the soul to their maximum. Cardinal Newman maintained that the university should train "the intellect to reason well in all matters, to reach out towards truth and grasp it."⁴ There are some who argue that higher education is the bulwark of democracy—that without it we not only fail to progress but we actually lose whatever ground has been gained. Education therefore assumes the role of evaluating goals and accomplishments with a view to redirecting social effort. A people cannot govern itself intelligently without mass education, for democracy involves a sharing not only of the benefits of cooperative effort but also of the responsibilities inherent therein. Higher education thus viewed serves primarily social purposes and not individualistic ends except in so far as the two aims may be consonant.

Another concept, supported in part by Plato, is that higher education serves as a great sifting force. This is a non-equalitarian point of view. It assumes a kind of gold, silver, brass, and iron classification of men, as Plato put it. This system was in operation to a considerable extent in ancient China with its elaborate plan of examinations which

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served presumably to select the superior individuals from the great masses, and made education the chief determining factor in social status.

Two schools of thought as to the social function of higher education are in opposition at this point. The first assumes that man can control his social destiny and that education therefore becomes a means to intelligently determined social ends. The other school holds that social progress moves more or less blindly, that no one institution determines the direction society takes, and that therefore the purpose of the institutions of higher learning is to select and place individuals properly in the society of which they are a part. The latter theory places great emphasis upon the selection and development of leaders, but of course this objective is not irreconcilable with the other point of view.

The purposes of the Greek philosophical schools were research and the acquisition of knowledge. Preparation for the art of public living was provided in the rhetorical schools and the ephebic training took care of the military requirements. The importance of Greek influence throughout the history of higher education cannot be overemphasized. If we consider the added influence of the scholasticism of the middle ages, we can account for much of modern thought concerning higher education. It was maintained by the scholastics that philosophy and theology were made of the same stuff; that their aims, purposes, and values were the same; and that if one went deep enough into either field he would discover the other. The effort was carried to great heights to reconcile Aristotle and Christian theology, and the results are found in the writings of Anselm, Abelard, Aquinas and others of the 11th to 13th centuries. Universities assumed the important function of providing centers where scholars might meet and work. Many of the books which they wrote have been used in colleges and universities to the present day.

The early colleges of this country, being patterned after those of Europe, strongly reflected the religious attitude of their founders. In the main, the first colleges were estab-

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lished as centers where men might be trained for the ministry, but the rapid spread of denominational support for colleges and universities was an expression of faith in the moral and religious influence which college life and study might exert upon students of all types. It was largely because of the strong sectarianism of the denominational college that sentiment for state support spread so rapidly in the latter part of the 19th century. There was also the problem of providing education for greater numbers of students and for students from widely different social and economic strata. The private and denominational schools had grown somewhat aristocratic. The state university thus developed in answer to the demand for a more popular type of institution and one supported and controlled by the state.

The establishment and very generous public support of the colleges of agriculture, mechanical arts and military science were a response to the demands for additional educational opportunities and for instruction along particular technical lines. Higher education, thus expanded, increasingly assumed the functions not only of promoting research, character development, and the acquisition of knowledge, but also of giving every ambitious young American the intellectual—and to an extent perhaps the physical, social, and moral—equipment to go out and reap his rewards whatever might be his field of interest. This great trend toward practical curricula at the college level has given rise to some major controversies of the present day, as reflected in the writings of Robert M. Hutchins, Mortimer J. Adler, Norman Foerster, John Dewey, Abraham Flexner and others. A few notable experiments representing the various points of view have been undertaken in a number of colleges and universities.

Higher education is lacking in uniformity of purpose and many will argue that it is lacking also in unity of purpose. President Charles W. Eliot of Harvard University was responsible more than sixty years ago for an innovation known as the "elective system" in colleges and universities. At Harvard he soon placed the new studies and de-

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partments on a level equal to that enjoyed by the classics. This elective system spread rapidly to other colleges and universities and encouraged the introduction of various types of new courses, many of which were of an *ad hoc* character as opposed to what President Hutchins likes to call the "permanent" studies which are general and which are lacking in utility and specific applicability. As a result it soon became possible for a student to present himself for graduation on the basis of an accumulation of the required number of credits, most of which were of elementary level and chosen from a very wide range of fields or departments. A partial remedy for this was soon found in the requirement of concentrations in "major" and "minor" fields — a practice which is almost universally followed in American colleges today.

The emphasis upon the new studies which crept in under the elective system gave rise to another important development. This was research, especially research in the new areas where so much remained to be discovered and where few data had as yet been gathered. Johns Hopkins University was the leader in this direction and is considered the first of the graduate schools. It dates from 1876.

All these newer studies raised some very critical opposition, as innovations usually do. What, for example, would the crowding out of Latin, Greek, and moral philosophy do to "scholarship," "learning," and the "liberal arts"? Could a man be considered liberally educated without these traditional studies? What substitute would there be for their "disciplinary" influence? Once it was thought that only those established courses which presented to the student a due amount of difficulty had true "mental discipline" and "transfer of training" values. Later, however, as some of the newer studies proved to be equally exacting, there was a tendency to accept the proposition that the mind could be "trained" by any kind of study which was of a sufficient degree of difficulty.⁵

By 1910 there were so many of these newer courses in our colleges and universities that a student might spend his entire life in a given institution, taking a normal load of

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This raises the question as to the correlation between different abilities. If a person is superior or inferior in one trait, what does this indicate as to probable ability in another trait? Correlations may vary between minus 1.00 and plus 1.00. A correlation of minus 1.00 would mean that if a person is above the average in one trait he would be the same distance below the average in the correlated trait, while a correlation of plus 1.00 would mean that he would be equally good or poor in both traits.

There have been many popular beliefs in negative correlation, or compensation as it is sometimes called. Men with strong backs have been supposed to have weak heads; precocious mental development has been supposed to promise low adult mentality. However, test results fail almost uniformly to bear out these popular beliefs. In general, all desirable traits appear to be positively correlated, though the correlations are often low. This means that when an individual is above average in one trait he is more likely than not to be above average in other traits. But the lower the correlation the less the probability. Also, even high correlations do not ordinarily guarantee that a person who is above average in one trait will be above average in the correlated trait. The correlation coefficient simply states an average condition, and individual cases may show very wide variation in the relations between the relative strengths of the correlated traits. So when the average correlation is .75, individual cases may be found which show perfect negative correlation. "A" students in one subject are usually above average in other subjects, but we do find cases of "A" students in mathematics who are "F" students in languages.

Another way of stating the relationships existing between the different traits in an individual has been stated by Hull.⁵ Hull concluded that if a large number of traits could be measured in a single individual and these different scores be made comparable by being reduced to standard scores, they would if plotted tend to give something approaching a normal curve. A second tentative conclusion was that trait variation within the individual would

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Such procedure will readily be recognized as sibling, if not identical twin, to "progressive education" methods. But careful examination of published announcements and catalogs of colleges and universities will reveal a number of instances where such steps are being taken and we may well expect that further developments lie over the horizon.

Tendencies toward what Hutchins and others call "specialism" raise the question of how perspective will be gained. Our social and economic life has become so complex and work has become so highly specialized that the problem of gaining and maintaining perspective grows more and more baffling. If the student spends his years in college pursuing the "permanent studies" and gaining a profound understanding and knowledge of "truth," he may find himself severely handicapped in the competition of the labor market, for he will obviously not be qualified for medical practice or the law or school teaching. Nor will he be ready to assume his duties as a mechanic or a boiler-maker. In some of these humbler vocations as many as seven years of hard work are required to attain the status of master craftsman.

Reactionary Influences

Those who condemn the current emphasis upon specialism, vocationalism, and *ad hoc* courses find support in the writings of such men as Robert M. Hutchins and Mortimer J. Adler who contend that the remedy lies in a return to aims, methods, and materials of the middle ages. They would center the college program upon the ancient metaphysics — particularly the metaphysics of Thomas Aquinas. Hutchins would not be opposed to theology as a unifying factor were it practicable, but he maintains that ours is a faithless generation. He therefore chooses the only alternative, as he sees it. According to his view, the purpose of higher education is to "cultivate the intellect," and he would set up one curriculum for all students and for all purposes, allowing but little differentiation or variation from his "permanent studies." And

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what are these studies that constitute his panacea? They are taken from the ancient *trivium* and *quadrivium* and include grammar, rhetoric, logic, and mathematics. The materials of instruction would consist mainly of the ancient classics. By his definition, "a classic is a book that is contemporary in every age."⁸ He would admit to college students who had completed the sophomore year of high school and keep them four years. Thus they would graduate at an age equivalent to that of students completing the sophomore year in the ordinary college program. Such students would then be ready for Mr. Hutchins' university program concentrating on "the fundamental problems of metaphysics, the social sciences, and natural science"⁹ for about three years. Let us see what preparation he would give a teacher:

The prospective teacher's general education would be identical with that of the lawyer, doctor, and clergyman. With a good education in the liberal arts, which are grammar, rhetoric, logic, and mathematics, he has learned the basic rules of pedagogy. The liberal arts are, after all, the arts of reducing the intellect from mere potentiality to act. And this is what teaching is. The liberal arts train the teachers in how to teach, that is, in how to organize, express, and communicate knowledge. In the university he should learn what to teach. He should study under all three faculties, and especially under that of metaphysics. If it then appears that he is destined for investigation or for vocational instruction he may learn the techniques of investigation or practice in a research or technical institute. If, for example, he seems likely to be a school administrator, and if a school administrator should know the number of janitors per cubic foot that school buildings require, and if a school administrator should not be trusted with a school unless he has this knowledge, then this knowledge should be gained in a technical institute.

... If we can begin with the education of a few teachers we may hope that gradually through the years a general education and a university may emerge.

In summary, then, the university would consist of the three faculties, metaphysics, social science, and natural science. The professors would be those who were thinking about the fundamental problems in these fields. The teaching would be directed to understanding the ideas in these

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fields, and would have no vocational aim. The student would study all three subject matters, with emphasis upon one. He would enter upon this program at the beginning of the junior year and continue in it for about three years.¹⁰

It should be noted that Hutchins proposes the establishment of separate technical institutes for "the tricks" of such trades as medicine, law, and teaching; not that he considers such training centers necessary but that they would serve as a temporary expedient and a compromise with those who have yet to develop full faith in the efficacy of his brand of metaphysics. For him the aim of higher education is *wisdom*. Wisdom is knowledge of principles and causes, i.e., metaphysics. Therefore, he reasons, metaphysics is the highest wisdom. He complains that America, having forsaken God and the proper metaphysics, has set up Karl Marx as the new god and dialectical materialism as the new theology.¹¹

In summary of the views of Hutchins, we may say that he is vociferously opposed to professionalism, specialism, and what he calls "anti-intellectualism." He believes that subject matter is an end in itself and not a means to an end. His college would be book-centered, based mainly on ancient volumes and few, if any, contemporary works, *even in the fields of science and social science!* He is a believer in the *theory of formal discipline*, as witness his faith in grammar, which "disciplines the mind and develops the logical faculty. It is good in itself and as an aid to reading the classics."¹² And again he says:

An intellect properly disciplined, an intellect properly habituated, is an intellect able to operate well in all fields. An education that consists of the cultivation of the intellectual virtues, therefore, is the most useful education, whether the student is destined for a life of contemplation or a life of action.¹³

The college program which has been established in recent years at St. Johns College, Annapolis, is an attempt in large measure to implement Hutchins' views. In this program there are no electives. The student studies over

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one hundred great books ranging from Homer's *Iliad* to *Principles of Psychology* by William James. The list includes the *Bible*, *The Origin of Species*, *Constitution of the United States* and *The Brothers Karamazow*. The student must acquire a reading knowledge of Latin, Greek, French and German in order that he may read some of the great works in the original. Since the institution is small and operates under rather unique conditions, it is doubtful whether the significance of the results can be validated. But it does represent one of the most interesting protests against the major trend in higher education and will merit continued study and observation.

The Modernist's Reply

Meanwhile the counter-critics have not been idle. The "essentialism" or "traditionalism" of such philosophical idealists as Hutchins, Mortimer J. Adler and Norman Foerster has aroused men of the pragmatic-realistic points of view. One of the best replies has been made by Professor Harry D. Gideonse, formerly a member of President Hutchins' faculty at the University of Chicago but more recently President of Brooklyn College, in New York City. Gideonse seems willing to accept many of Hutchins' criticisms of the modern college program but bitterly opposes the remedies suggested. He points out that the faculty of the University of Chicago has gone on record as supporting an educational program which looks beyond mere cultivation of the intellect and which provides for understanding contemporary life in all its phases. Moreover the faculty rebelled against the idea of officially adopting "any single system of metaphysics, psychology, logic, religion, politics, economics, art, or scientific method. To follow the reactionary course of accepting one particular system of ancient or medieval metaphysics and dialectic, and to force our whole educational program to conform thereto, would spell disaster. We cannot commit ourselves to such a course."¹⁴

Gideonse maintains that "the cross-fertilization of theory

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and practice is the very life of each. It can be achieved only by constant preoccupation with both the universal and the particular—and to isolate these functions in the formal organization of institutions of higher learning is to destroy our principal reliance for new knowledge and insight.”¹⁵ He therefore challenges Hutchins’ proposal to isolate theory and ignore practice. This view harmonizes with John Dewey’s “conviction that security attained by active control is to be more prized than certainty in theory.”¹⁶ Professor Gideonse’s closing paragraph is most pungent:

To describe the higher learning in America as if it were almost entirely vocational and provincial in the chronological sense is to overlook some of the highest achievement and some of the most seminal inquiry ever pursued under academic auspices. Critical scrutiny of abuses of academic privilege is essential to continued vitality—and even the best of our American institutions afford abundant opportunity—but to avoid the abuse by the advocacy of a monastic withdrawal to a community of scholars primarily concerned with the elaboration of a discarded metaphysics is to abandon the very essence of modern achievement. The contemporary scene is full of societies in which the logical development of first metaphysical principles with “due subordination” of observed facts, is diligently pursued. It is sad to reflect that a commendable concern for moral and intellectual integrity should be deflected by distortion of focus into a weapon against the very forces it seeks to strengthen.¹⁷

In reply to Hutchins’ objections to our universities’ engaging in technical training, President Roscoe Pulliam’s views are of interest. He says:

In technical proficiency we lead the world, and our universities are almost the sole source of our pre-eminence. It is possible that some fruitful suggestions about the reasons for failure in general education may be found by observing the methods and materials that are used so successfully in technical education.¹

In criticism of the American college of liberal arts, Pulliam goes on to say:

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When first-rate intelligence is taught by precept and example to give its major consideration to the campaigns of Julius Caesar, the heavenly visions of Thomas Aquinas or the geologic functions of earthworms, we must not be surprised when the critically important public business goes by sheer default to ex-bartenders and correspondence school lawyers. ¹⁹

Thus rages the conflict between the following of authoritarianism and the adherents of pragmatism, experimentalism, and related positions. On the one side stand those who tend to adhere to absolutes and fixed values and whose eyes are focused on the past. On the other side we find a large group committed to the philosophy of change, who view the world in dynamic terms, who accept the necessity of constant re-evaluation, readjustment, and re-adaptation, and whose interest is therefore most decidedly focused upon the turbulent present and the problems that arise to be solved. The former would agree that problems arise in the on-going experiences of daily living but that they must invariably conform to certain fixed patterns that can be interpreted and understood in the light of the accepted metaphysics or first principles and causes. Some great book or some great authority affords the answer to the mind disciplined to know, to recognize, and to identify. Adherents of this point of view would maintain that those patterns of thought which evolved when the world was young and simple are still the most valid and complete. Apparent innovations are easily interpreted, as old principles operating under slight disguise. Such a position naturally suggests an educational program made up of "essentials"; it calls for a simple and relatively fixed curriculum pattern.

Outlook for the Future

But this is a highly practical age and men have grown more stubborn about values, truth, and evidence. They prefer to establish these things for themselves rather than accept them on an authoritarian basis. They like to see a thing before believing it and some are a bit technical about their data and observations. But, having seen the evidence,

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they are more amenable than the backwoodsman at the zoo who, upon seeing his first giraffe, exclaimed, "They ain't no sech animule!" Men have had their curiosity aroused about almost every aspect of their environment, and the resulting research and discoveries have justified their attitude.

The progress of science and invention, already moving at increasing speed, was given even greater impetus by the demands of World War II. New fields of specialization, such as electronics, have been developed and technical fields will undoubtedly continue to attract greater numbers of students in our colleges and universities. The exigencies of war gave increased stimulus to technical and scientific studies and the army and navy established colossal educational programs for their personnel in order that their men might be prepared to utilize the techniques and devices of mechanized warfare.

The great value thus placed upon scientific and specialized training has forced the college of liberal arts into a defensive position where it has been seeking diligently to take stock of its aims and purposes and possibly to redefine its objectives and reorganize its program. Not all those who have faith in general education are agreed as to ends, to say nothing of ways and means. Many, less reactionary than Hutchins, take the view that the liberal arts are good in peace-time but have no contribution for war. Others, more liberal, argue assiduously that war-time, above all times, is when men need the moral and intellectual "lift" afforded by such studies as the humanities.

Most educators agree that there is a need for specialized education in this complex democratic society and that there is little prospect that the trend toward vocationalism will be reversed or significantly altered in years ahead. On the other hand, there is the constant danger of over-specialization, or rather, of over-emphasis upon specialization resulting in students pursuing programs which are overloaded with courses of the *ad hoc* type so viciously attacked by Adler and others. Admittedly there is constant need for vigilance to insure, if possible, that students develop a more comprehensive philosophy of life, that they acquire a more

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humanistic understanding and appreciation of their fellow man, that their outlook be broad enough to enable them to assume the responsibilities of intelligent democratic citizenship. Anything short of this will be fatal to the establishment and maintenance of a satisfactory peace, to say nothing of successful postwar domestic readjustments.

Science raises more problems than it solves. Living, as we do, in a scientific age, we shall be faced more and more with the necessity of adjusting to the inevitable complexities. Our youth will need and will want technical knowledge and vocational skills. But we must give support and encouragement to programs which look to well-rounded development. Some happy admixture of general and vocational education would seem to be the answer. Miller and Brooks have effectively summed up the situation. They subscribe to the school of thought which

. . . believes that the liberal arts will continue to be a vital part of American higher education, but that the values of liberal education will have to be pleaded for and even fought for if they are to have proper recognition. The significant reports and dynamic discussions on the subject which are now proceeding from the press is a part of this process. This . . . school also believes that the future holds promise of a much more realistic integration of liberal studies with vocational preparation. No student in the field of higher education, whatever his professional or vocational outlook, should be graduated without sound preparation for living in modern society and understanding its history and problems, as well as having been trained to make a living in that society. These two educational objectives are not mutually exclusive . . . The problem after the war will be to achieve a sound balance between the two. The concept of liberal education will change just as it has changed in the past, and vocational education must take its mind off skills long enough to reorient itself to the necessity of training youth to assume more general responsibilities in modern society. ²⁰

Not only must there be a welding of the vocational and the general studies, but there must also be an integration of theory and practice in both areas in order that vital relationships may become more evident and that unity may be

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established on a broader basis than that of thought alone. From this point of view, there is much to be said for the Antioch College plan which provides for a supplementation of campus study with off-campus work. It is designed to give the student a richer background of experience as a basis for developing interests, making vocational adjustments, and improving personal and social effectiveness, and, in the words of President Henderson, "... to help him gain a more comprehensive and accurate knowledge of the world in which we live, acquire a sensitivity to the needs and aspirations of the people who do physical labor and learn how to speak their language, observe facts and test ideas in experience, and generally temper and sharpen his judgment."²¹

Technological developments greatly complicate the problem of education and adjustment of the individual, but they also make possible an almost limitless extension of educational facilities and opportunities. At the level of higher education there has already been developed a very extensive program of off-campus instructional activities including correspondence courses—greatly emphasized by the United States Armed Forces Institute—extension classes, field work-shops, and institutes of various kinds. Recent years have seen a widespread growth of cultural and educational opportunities offered via radio and motion pictures. It is a rare college or university which does not maintain some kind of field service or extension division, including radio programs and visual education materials. Opportunities are thus afforded ambitious individuals to pursue studies related to their interests at the same time that they are engaged in the practical experiences of daily living. The impending developments in television promise opportunities for the learner "to see" as well as to hear, thus facilitating learning by appealing to both the auditory and the visual senses.

We have gone a long way in America toward establishing a network of colleges and universities which is fairly adequate from a geographical point of view, but we have not reached far as yet in the direction of a fully developed

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program readily available to each and every citizen and adapted to individual needs. The effort of the future should be directed toward a continuous re-examination of educational values with a view to making education progressively more effective from the standpoint of both the individual and society. We may well expect the emergence of a more comprehensive philosophy of education, not limited to a subject matter base on the one hand nor merely to individual whim on the other, but one which takes a dynamic position and admits the necessity of constant re-evaluation in the light of new conditions and in view of a more intelligent understanding of the old.

NOTES ON THE CHAPTER

1. Walter A. Lunden, *The Dynamics of Higher Education* (Pittsburgh: Pittsburgh Printing Company, 1939), p. 33.
2. Paul Monroe, *A Textbook in the History of Education* (New York: The Macmillan Company, 1926), p. 109.
3. *Ibid.*, p. 172.
4. John Henry Newman, *The Idea of a University* (London: Longmans, Green and Company, 1929), p. 125.
5. See Charles L. Jacobs, "The Problem of Formal Discipline," chap. XIII in this volume.
6. Mowat G. Fraser, *The College of the Future* (New York: Columbia University Press, 1937), p. 170.
7. Robert M. Hutchins, *The Higher Learning in America* (New Haven: Yale University Press, 1936), p. 67.
8. *Ibid.*, p. 78.
9. *Ibid.*, p. 107.
10. *Ibid.*, pp. 114-116.
11. *Ibid.*, p. 104.
12. *Ibid.*, p. 82.
13. *Ibid.*, p. 63.
14. Harry D. Gideonse, *The Higher Learning in a Democracy* (New York: Farrar and Rinehart, 1937), p. 13.
15. *Ibid.*, p. 24.
16. John Dewey, *The Quest for Certainty*, (New York: Minton, Balch & Company, 1929), p. 37.
17. Harry D. Gideonse, *op. cit.*, pp. 33-34.
18. Roscoe Pulliam, "Can Higher Education Return to Fundamentals?" *School and Society*, XLVIII (Dec. 3, 1938), 707-712.
19. *Ibid.*, p. 711.
20. Joseph Hillis Miller and Dorothy V. N. Brooks, *The Role of Higher Education in War and After* (New York: Harper and Brothers, 1944), pp. 209-210.
21. Algo D. Henderson, *Vitalizing Liberal Education* (New York: Harper and Brothers, 1944), p. 138.

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CHAPTER XXVI

THE ENRICHMENT OF LIFE THROUGH

HOME ECONOMICS AND ART

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With public education being penetratingly scrutinized, reexamined, and reassessed, we ask which courses are most vital to us? Such critical analysis has resulted in the conclusion that home economics and art have a very real function in the school program because they educate for living, family and personal. They deal with down-to-earth, practical subject matter for everyone.

Goals for Home Economics

Preparation for family life requires an understanding of the family in society and the relationships within the family group. It also develops an understanding of the need for adequate nutrition and clothing, wholesome recreation, and satisfactory housing. The skills necessary for family life are those needed in planning meals; buying, preparing, serving and preserving food; in selecting, maintaining and constructing clothes; in caring for children and those who are ill; in money management, home furnishing and house-keeping. The whole of living, not just cooking and sewing, is given emphasis in home economics.

The primary function of home economics is to help with personal and home living, in addition to the secondary

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function, a vocational value of preparation for earning a livelihood. The goals of harmonious living in the family are given as much emphasis as either of the other two. With the great advance in the technologies there is still need for better human relationships. Is it not possible that the great strides in the technologies may tend to overshadow the importance of the human factor in business, in industry, and in the family?

Home economics helps students to see that all knowledge is relevant to human welfare, to the day's experiences and living activities, and to saner judgments. When people see the effects of nutrition, for example, on human welfare, it makes science a study of greater interest. When they observe how costs of processing, packaging, and advertising add to the cost of prepared foods, they understand what is paid for labor and what for food value. When students learn that the way the income is spent determines the well-being of the family, they see the significance of the role of the homemaker in the economic welfare of the family. When people learn that behavior as well as attitudes toward life are conditioned by the nutritional state of the person, they develop an interest in food which has a larger and more meaningful scope.

The family is the real basis for democracy when we see its members each working for the benefit of all, and when cooperation becomes a habit. In the well conducted family, children are taught that freedom is allowed for each member in so far as the rights of other members are respected. We see also the effect of each home on the community, and of each community on the country, and of each country on other countries.

Family living needs a foundation laid in parent education and in child development. What should be the child's physical, mental, and emotional development at a particular age and how should he be trained in good food, play, and rest habits? These are parts of any course in child development. If a child shows tendencies to emotional instability, the parent needs to recognize them and be prepared for wise methods of handling the child. The need for

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dovetailing parent education and child development as education for family living is indeed great.

Home economics, then, is not limited to the motions of cooking, sewing and cleaning, but is a study of life situations where experiments are made and conclusions are drawn regarding people, methods, products, time and cost. Managerial abilities are stressed in the preparation of simple, attractive and economical meals as well as in the making of becoming clothes in a moderate amount of time.

If a woman expresses herself artistically and feels that making a dress inexpensively or feeding the family on a dollar a day is creative expression, she has a sense of mastery over her environment as well as a feeling of economic security for the future. She can adjust to her income and still live with dignity and enjoyment on a limited one. If she can make marmalade and enjoy doing it, she has a sense of usefulness. If she can make a smart and becoming dress for a reasonable amount, she feels she can be well dressed on a moderate income. There is a point of economic security involved which gives the doer a feeling of confidence and control over her environment, and adds to her personal sense of well-being.

Often we think higher income groups do not need help in living. The high income woman, it may truly be said, needs to develop fewer basic skills. However she cannot direct without first understanding household tasks and table service. She has the opportunities in home economics for developing the highest tastes in clothing selection, home furnishing, meal planning, and table service. Home economics trains individuals in the social amenities and in gracious hospitality. Surely the social value is immeasurable. She is trained in distinctive tastes and design and has the ability to use them with confidence. She can do lovely flower arrangements. The training in nutrition, health, and household management is equally desirable for the high and low income woman.

The woman as consumer-buyer is vitally important in the economic picture of the family. The problems of consumption in wartime have made us conscious of the total re-

sources of all the people of the nation. The consumer's role, being an economic one, has been affected immeasurably and with it the economic design of the family. We have learned, in the shift in consumer ideology, to yield to our accustomed rights in the interest of the nation at war. The general curtailment of the volume of consumption has altered the pattern for civilian consumption and thrown emphasis on careful buymanship, care and use of consumer goods. Consumer skills find their application to specific goods such as meat shopping, and buying food, textiles, clothing, cars, housing and household equipment, home furnishings, and recreation. The problems of taxation and investing, of standardization and labeling, are problems of consumer education courses in home economics.

The primary emphasis in home economics is generally focused upon three major goals: (1) that of helping to solve personal problems; (2) preparing for family living; and (3) offering training needed in various vocations, occupations and professions. Some colleges offer programs directed toward the first two and do not attempt professional education in home economics. Others offer programs which meet professional requirements, chiefly for teacher training and dietetics, and make the personal and family life incidental. Many accept responsibility for both.

Few fields offer as wide a range of possibilities either for the solution of problems faced in personal living or the choice of a vocation as does home economics. Home economics trains specialists in foods, nutrition, textiles, clothing, child care, housing, home furnishing, dietetics, and consumer problems; it trains research workers and teachers, designers and food managers, dietitians and buyers.

Probably no field open to women serves to prepare them as completely as does home economics for both living and earning a living. In wartime, home economists serve in fields of public health, consumer protection, nursery schools, and group feeding, in addition to the usual capacities. In many cases refresher courses in nutrition, canning, clothing conservation, and child care meet pressing needs during the emergency of war. Temporary living,

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shortage of materials, and rise of prices need to be met with intelligence in time of war, and home economists are called upon to grapple with these problems.

To summarize the goals for home economics, Clara Brown says home economics should "help people achieve a more satisfying life" in terms of:

1. Better health thru improved nutrition, sanitation, and living habits.
2. Better appearance thru careful grooming, good posture, selection of appropriate and attractive clothes.
3. More adequate housing.
4. Better relationships with family members, friends, employers, and colleagues.
5. More satisfaction from marriage and family life.
6. Healthier, happier children better able to face reality and assume responsibility.
7. Wiser use of money so that greater satisfaction may be attained from its expenditure.¹

Relation of Art to Home Economics

The experiences in art instruction should be closely allied to the problems of daily living and touch as many areas of life as possible, arising out of life itself. Arranging stock in a store window and selecting wall paper or draperies for a living room are rich and vital experiences. Art problems arise out of real life situations, such as selecting clothing, arranging furniture, planting gardens, planning community improvements, and seeing the design problems involved in automobiles, gas stoves, and packaged goods.

When a housewife wants to repaint her kitchen, or a store owner wants to change the exhibit in his show window, or a man wants to rearrange his yard planting to secure privacy, these all involve real art problems, the solutions of which cannot be dissociated from the application of art principles or guides for taste.

Such real problems meet with enthusiastic response among students and enrich their school experiences as well as creating a desire for improving their own environments.

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So the idea that there are genuine art values in commonplace objects and experiences is entirely new to some people. Related art is not "gallery" art or designing on paper. Home economists have been accenting the beauty in the less expensive objects, showing how to make the best of one's possessions, and deepening the appreciation for beauty in everyday life for many years. Art has not been taught for art's sake but rather in its relation to the problems in today's living. Art and home economics are thus so closely related that the experiences and generalizations are difficult to attribute to one alone.

The place of art in home economics is recognized as having a very great contribution in the field of mental health. In addition to bringing new enjoyments found in looking at the arts with understanding, it provides relief from tension in working with crafts. It builds self-confidence in the knowledge that one is able to choose becoming clothes and create attractive surroundings. People trained in art can help others to build good standards of taste and spread this pleasure to others as well as to themselves and their families.

Widening interests and showing the relationship of art to one's own activities is the first step, then, in art training. Recognizing beauty and using it in relation to student's interest in clothes and their interest in the house is a good starting point. The breadth of the field of related art is thus made plain. Thus, art in the familiar things makes it more vital. Teachers can lead students to see its possibilities in making drab quarters attractive, in good taste in the arrangement of food, in the relation of color and texture between flowers, their containers, and their setting. Teaching the psychological effects of warm and cool colors and the way in which they influence the mood of people is important in clothing and the interiors of homes, shops, and restaurants. Good art teaching provides the opportunity to see that color and texture combinations in food and table arrangement are as important as they are in dress.

One of the chief goals in art training is to teach individuals to recognize the difference between what is sincere

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and distinguished and what is insincere and ostentatious in design. The student has opportunity to become acquainted with fine quality and distinguished design even though it be for a subsistence income.

The life of every person is richer and more satisfactory if he learns to make his environment as pleasing as possible. The late Dean Melvin E. Haggerty of Minnesota, Director of the Owatonna Art Education Project, expressed this idea in *Art a Way of Life*.² He meant that art is effective in daily living in selecting articles of common use, in combining and arranging furniture in a room, in the appreciation of public buildings, in great paintings and sculpture, in planning gardens and clothing.

The Owatonna Art Education Project was an experiment conducted by the University of Minnesota in collaboration with the Carnegie Corporation to find new materials and methods for art education in the schools. As Dean Haggerty says:

It seeks to discover how the art needs of current American life can be picked up and made the basis of a school curriculum. In beginning the study we sought to gain an overview of activities in a typical American community that may properly be considered as involving art. Paralleling these efforts, an attempt has been made to devise teaching projects that will reflect the community interests and by trial to discover their usability for school instruction.³

A point of view in art education is reemphasized by the generalizations achieved by the Owatonna Art Education Project. The writer was a member of the project staff and feels that these generalizations are widely applicable in any community where art or home economics is taught.

The principal generalizations are: that everyone uses art in his daily living; that art problems arise in practical and meaningful situations; that people enjoy solving their own art problems successfully but do not have the training to do it often; that people are frequently unaware of beauty in their immediate surroundings; and that often their tastes in art are inconsistent in various fields.

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Art instruction needs to be sufficiently individualized to reach people within the tremendous range of skills, tastes, and interests. In addition, art instruction should have a broad scope to provide experience in every art field, such as community planning, garden design, and industrial design. These fields are rarely given attention whereas traditional programs place relatively great emphasis on history of art, drawing, and principles of design.

We have mentioned that teaching of art is done with actual experience with actual materials rather than limiting the experience to designing on paper. Students work with actual furniture and accessories and fabrics in an effort to make sizes and textures and colors meaningful. They actually arrange flowers in containers and select and arrange suitable tableware for a meal, as well as arrange the food and garnishes attractively on the plate. Dress design is taught by handling and draping of actual materials to relate color and texture and line to the wearer.

Contributing Fields

Home economics has drawn heavily from or worked closely with other fields, namely, four: (1) art, for the study of the house, home furnishings, and clothing; (2) natural sciences, for the backgrounds in chemistry, zoology, bacteriology, and physics; (3) psychology and sociology, for the human development of family relationships, and social work materials; and (4) economics, for the study of consumer problems.

Art has drawn rather extensively from the fields of (1) natural sciences, for backgrounds in physics and chemistry; (2) history, for the development of art forms; and (3) home economics, for the areas related to home and clothing.

To make art effective in daily living it should meet the problems of human needs in the home, the community, religion, industry, commerce, and painting and sculpture. For a long time we have been confused and deluded by our tendency to classify, rather rigidly, the many art forms into two categories, one fine arts, the other applied (or useful

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or industrial) arts. This leads us to disregard the relationship of one to the other. If we distinguish them by saying that the fine arts are primarily arts of expression, whereas the applied arts serve utilitarian needs, let us realize that the differences among the forms of art are those of degree, not of kind.

Educating both sexes for living. It is generally believed that both sexes should be educated for family living and that insight into everyday problems is not instinctive but must be acquired through conscious effort. C. Robert Pace, in a study of 951 former university students at the General College at the University of Minnesota, found that "To overcome prejudice and lack of desire for more information and greater insight is the first task of any program of general education for family living."⁴ He says that in several areas of family living the practices of these young adults did not measure up to the expectations of the faculty, chiefly that the majority of men were not interested in family problems or active in family affairs, that there was inefficient income management, and that the young couples with children were concerned about lack of training in child care. Mr. Pace observed that in the case of adults where evidences of inefficiency were observed, they were either satisfied with their inefficiency or ignorant of it. Which in turn means that students often need to be exposed to areas of family living before they recognize the values such areas have for their own life needs. Education for family life should be valuable to students irrespective of their occupational goals, and certain aspects of it irrespective of their sex.

Trends

There is a trend to introduce more home economics into liberal arts colleges in recognition of the need for training young people as family members and homemakers. The inevitability of problems of everyday living needs to be met in education and this is recognized by parents and educators on the elementary, the secondary, and the college

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levels. It is recognized that women will have home lives whether they marry or not, so that the problem of educating to meet the problems of everyday life is as great as, if not even greater than, that for professional training. Training for personal and family living should be placed early in the college career since the rate of withdrawal is exceedingly high in the first two years of college.

There is also a trend to reduce the number of required courses preceding a course in home economics. The rather rigid prerequisites of chemistry before a course in meal planning and preparation, or principles of economics before a course in income management or consumer problems, tended to reduce the numbers who ordinarily would profit from taking such practical courses. Macalester College in St. Paul, Minnesota, is one of the schools to recognize the need for allowing liberal arts students to take courses in home economics without giving a major or professional course in it.

It has been shown that success in sequent courses depends more upon general scholastic ability and intelligence than upon the completion of required scientific prerequisites.³

The same study showed a consistent decrease in the average number of students enrolled at each level from the freshman to the senior year. Therefore, courses in personal and family living should be made available to students early in their college career before they drop out.

Teachers and administrators are evaluating their art and home economics programs in the light of wartime conditions and post war problems to permit home economics and art to serve the needs of more people and to serve them better. Both the immediate and the long range problems of a world at peace are being considered to make the programs increasingly effective.

When students have gained self-confidence in solving their personal and family living problems, they have gained in morale. They have learned how to be happy with the things they can have. We have then prepared them for discriminating choices based on an intelligent understanding

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and on judgment. These are the enrichment of school experience.

NOTES ON THE CHAPTER

1. Clara Brown, "Home Economics in Postwar Education," *Journal of Home Economics*, XXXVI (September, 1944), 416.
2. See Melvin E. Haggerty, *Art a Way of life* (Minneapolis: The University of Minnesota Press, 1938).
3. *Ibid.*, p. 5.
4. C. Robert Pace, *They Went to College* (Minneapolis: The University of Minnesota Press, 1941), p. 91.
5. Clara Brown, *Home Economics in Liberal Arts Colleges* (Minneapolis: Burgess Publishing Company, 1943).

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CHAPTER XXVII
RELIGION AND MORALS IN
THE PUBLIC SCHOOLS

V. T. Thayer

Ethical Culture Schools, New York

Unlike education in many, if not most countries, formal religious instruction finds no place in the curriculum of American public schools. Theoretically, at least, children of all religious faiths, or no religious faith at all may attend school without fear of exposing themselves to sectarian influences. Just as the Federal Constitution bars religious tests as a qualification for office and forbids Congress to make laws "respecting an establishment of religion, or prohibiting the free exercise thereof," so the states have generally excluded religious instruction from the schools and forbidden their legislatures to appropriate money for religious groups to use for purposes of education.

On the other hand, education in the United States is a state and local function. Each state and each community exercises control over the work of the public schools, and the schools, in turn, reflect the dominating concerns of the people they serve. Consequently the application of the principle of separation of church and state varies from community to community and from time to time. In a region composed of divergent religious sects, the schools tend to avoid scrupulously activities that may offend the members of religious organizations represented in the com-

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munity, whereas a school in a relatively homogeneous community may insist on "non-sectarian" religious instruction not unlike that obtaining in one southern country school system.

In all these schools there is a devotional period every day in every room consisting of Bible reading and prayer, usually the Lord's Prayer being used. Assembly is held once a week. This period is opened with Bible reading and prayer and a religious song.¹

How may we reconcile these divergencies in practice and interpretation and this seeming conflict between two well established principles, that of the separation of church from state, and that of local autonomy in education? And what precisely do sectarian and non-sectarian instruction mean? In short, how did our schools get this way?

This requires a brief review of our educational history.

The Origin of the American Secular School

In the colonial period our population was predominantly Protestant. "On the eve of the Revolutionary War over 99 per cent of the population of the British colonies in America were non-Catholic."² Within this Protestant population, however, there existed a multitude of religious sects whose rivalry led gradually to the disestablishment of a favored church and ultimately to the acceptance of religious freedom as a natural right.

These reforms come slowly, however. For example, in 1691 Massachusetts granted "liberty of conscience in the worship of God to all Christians except Papists"; Pennsylvania provided in 1701 for liberty of conscience to all "who confess and acknowledge God;" and not until the last quarter of the 18th century were Constitutional guarantees of religious freedom (tax exemption from the support of a state church and the right to worship according to the dictates of one's own conscience) assured on an extensive scale. Nor have these guaranties, down to the present day, constituted more than slender protection for the non-be-

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liever. Indeed, what is commonly called religious freedom is more accurately described as a policy of neutrality on the part of the state toward religious sects and means merely that governments should not play favorites as denominational groups.

By 1789 the fight for disestablishment and freedom to worship was fairly well recognized in the colonies. This victory was reflected in the people's insistence upon the passage of the first amendment to the Constitution, thus depriving the national government of legislative control over religious life; and since this national expression reflected sentiments within the states, state constitutions tended to include similar prohibitions and guarantees.

All of this antedated public education. Prior to the Jacksonian period, education was a parochial enterprise. Within parochial schools, however, influences were operating to tone down an exclusively sectarian emphasis in religion and morality. Denominational schools were difficult to finance in sparsely populated communities. Gradually they opened their doors to children of differing creeds. With a more generous admissions policy interest shifted from instruction in points of religious divergences to items of common agreement as between Protestants. Thus non-sectarian schools and non-sectarian instruction came into being. By the time public schools, publicly supported, arose, the principle of non-sectarian instruction was fairly well developed.

The invention of non-sectarian religious instruction was a significant event in American education. In the early stages of public education, it seemed to possess two virtues. It insured an appropriate emphasis upon religion and morality in the education of young people and it promised to safeguard children from the ill effects of sectarian rivalry through the prohibition of sectarian teachings in schools supported in whole or part by public funds. As Charles and Mary Beard remark:

The strife among the religious sects, the struggle of each denomination to subdue all the pupils in its schools to its theological bias, and the resistance of parents all combined

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to augment the demand for general public schools supported by taxes and freed from clerical control. America had not become irreligious but no one sect was strong enough to dominate the whole terrain, and secular instruction was the only thing on which all the sects could agree. ³

By the end of the 19th century the complexion of our population was undergoing change. New and strange peoples with new and strange religious views were finding in America a haven and a refuge not unlike that which had attracted the older and more settled elements a century or two earlier. As these groups established themselves they began to point out that what passed for non-sectarian instruction in states once predominantly Protestant was in effect sectarian when applied to non-Protestants. And just as Horace Mann and others fought vigorously in the 1830's and 1840's to eliminate passages from school readers offensive to Unitarians, Universalists and liberal minded Christians, so in the last quarter of the 19th century liberal theologians and free thinkers united with Jews and Catholics in opposition to the use of the Protestant Bible in the classroom.

For a time this movement encountered difficulties. The courts sustained the expulsion from school of Catholic children who refused to read from the Protestant Bible,⁴ and, as late as 1898, an annotation of the Wisconsin Statutes asserted that the constitutional prohibitions against sectarian teaching referred exclusively

to religious doctrines which are believed by some religious sects and rejected by others, . . . [but that] to teach the existence of a supreme being of infinite wisdom, power and goodness and that it is the duty of all men to adore, obey and love him, is not sectarian because all religious . . . sects so believe and teach. ⁵

In this atmosphere little consideration was shown not merely non-Protestants but non-Christian, agnostic and atheistic groups as well.

On the other hand there was a steady drift in the direction of the secularization of instruction. In 1872 the Board

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of Education of Cincinnati forbade the reading of the Bible in its schools. In 1890 the Supreme Court of Wisconsin ruled that the reading of the Bible was unconstitutional since it constituted sectarian instruction, and in 1902, 1910 and 1915 respectively the Supreme Courts of Nebraska, Illinois and Louisiana rendered decisions of a similar nature. Other states eventually followed suit, prodded, as they were, not only by Jews and Catholics but as well by liberal Protestants and agnostics. Gradually these efforts bore fruit and, whereas, for example, as late as 1903 ten states still required the reading of the Bible in the schools, by 1913 only two retained mandatory provisions for so doing.

Many influences operated to promote a secular spirit in American life that would encourage and sustain liberal influences within the school. We can do no more than mention them here: the influence of science, particularly the Darwinian theory of evolution and its devastating effects upon traditional theology, the rise of historical criticism and the transformation this effected in people's conception of the Bible, and the preoccupation of men's minds with the conquest of a continent. Religious concerns thus gave way before secular and more "worldly" interests, as against the effort to resolve religious differences our people concentrated instead upon laying the foundations of a distinctively American culture. With the result that our schools soon tended to substitute for instruction in religion an emphasis upon education for citizenship; the creation of common patterns of behavior and thought out of the diverse customs and habits characteristic of the heterogeneous elements in our school population.

Nor was this an insignificant accomplishment. Consider the alternative that might have been ours had each one of the 250 and more religious sects now represented in this country endeavored to control local, state and national governments in the interests of its members and to the disadvantage of its rivals. And yet precisely this outcome might have sprung logically out of the seeds of religious diversity sown in the period of colonization. Fortunately,

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in contrast, the offspring of varied immigrant strains have mingled on the whole in a friendly school atmosphere and later in the activities of adult life. Thus we have become essentially one people. There is much to deplore in the superficial and oversimplified conception of the melting pot that prevailed some years ago; but, to change the analogy, in so far as we have endeavored to create something akin to an orchestration of differences in our common life, Americans have been possessed of a healthy ideal. It is, moreover, an ideal that has resulted in fact in a mutual adaptation of differences that may well serve as a continuing example for our future and a promise to the world at large.

Despite these accomplishments of the secular school, we encounter today vigorous efforts to re-introduce religious education into general education.

The methods vary from place to place. In some communities school and church cooperate in the selection of religious teachers who conduct scheduled classes on school time, often within the school building. In other communities a "released time" program operates. According to this plan children are excused from school at an appointed time, on the request of parents, to attend religious classes in church schools. This arrangement has grown in popularity in recent years, and is probably in operation in more than a thousand communities at the present time.⁶

How do we account for these new developments which seem to run counter to the trends of the past one hundred years?

Factors That Suggest the Cooperation of School and Church in Religious Education

In the first place they reflect a hunger for certainty, for conviction and a sense of direction in the soul of modern man. What Walter Lippmann once termed the acids of modernity have eaten away the simple faith of an earlier day and no adequate substitute has as yet won widespread or universal acceptance. Science and the spirit of science

have contributed to material well-being and have both emancipated and transformed the minds of men and women, but the fruits of science have also been cultural confusion. Within a few short years a rural and an agricultural economy has become predominantly urban and industrial in character, with resulting changes in customs, codes, and conventions as well as thinking. A nation which, since Washington's administration, has identified its salvation with isolationism, finds itself, whether it will or no, one in a family of nations some members of which are possessed of strange and unfamiliar doctrines. The political and social institutions that a confident people once thought would elicit naturally the "envy of mankind" were to be challenged by totalitarianism from without and revolutionary conceptions of political, social and economic associations within. Ways of life, by which we mean the role of the child in the home, the everyday relations of man and wife to each other and their children, common notions of discipline, approved and disapproved behavior between the sexes, in brief, the whole gamut of conventional manners and morals are no longer accepted with their former certainty. On the contrary, there is scarcely a neighborhood or a community, a city apartment or a village street but what confronts its inhabitants with a medley of cultural patterns, some grounded in the tradition and customs out of which people have come, some prompted by studied efforts to solve new problems in new ways

Men react differently to novelty and change. A few courageous and daring souls welcome uncertainty and feed on insecurity. Others, probably the majority, long for well charted routes along which they can travel hopefully and safely. When assailed by doubt and uncertainty, they welcome a leader or a dogma, some comforting voice that speaks with assurance. Or, lacking conviction themselves, they seek it none the less for their children. Consequently we find large numbers of parents who have severed connections with organized religious groups insisting that their children receive instruction in the faith of their fathers. They reason that at its worst this training will do

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no harm and it may give their children the "right start" in life. They thus align themselves with that considerable body of people who sincerely believe that our democratic heritage is grounded in the spiritual conception of man as embodied in the Hebrew-Christian conception of religion. Thus convinced they call upon the school to assist in underwriting democracy.

Opponents of religious education in public education, on the other hand, argue that the re-introduction of religious education in the schools guarantees no solution of the problems arising out of cultural disturbance. They believe with Professor John Childs that it is "a confused, misleading form of thinking which holds that in order to conserve our democratic heritage we must abandon" the secular principle in education. Indeed, they interpret this revived interest in religious education as part and parcel of a conservative, even authoritarian trend in American political and economic as well as religious thought. They have in mind the retreat of the Social Gospel movement, with its emphasis upon building the kingdom of God on this earth, before the onslaughts of neo-orthodoxy. This conceives of human nature pessimistically and despairs of man's capacity permanently to improve his lot. On a more popular level this movement finds expression in the rapid increase in religious sects of a millenarian variety.⁸ Religion in the fox holes and on the rubber rafts is thus not without recruits from civil life.

Convinced as they are that the demand for religious instruction is but one phase of a larger movement which threatens both the unity and the security of a people who were first relegating religious differences to the background of concern, the opponents of religious instruction can see only disaster flowing from this "reversion." They are ready to grant the need for resolving cultural confusion, but they insist this can come only when schools both discover and stress the values and the ideals men hold in common, and this presupposes, they believe, not an emphasis upon that which divides Catholic from Jew, or Jew from Protestant and Catholic, or the Methodist from the

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Mennonite, the Mohammendan from the Hindu; it requires on the contrary, an organization of work and play in the classroom and extra-curricular life of the school as a whole calculated to create and reinforce common ways of feeling, acting, and thinking so that unity does in fact permeate diversity.

This suggests a second reason for the drift toward religious instruction in public education. It testifies to the failure of moral and civic education in the secular school. This failure is one of practice; but it is rooted as well in the ancient theory that moral behavior can flow from verbal instruction unrelated to deed. A striking confirmation of this attitude is President Hutchins' insistence that the school

leave experience to other institutions and influences and emphasize in education the contribution it is supremely fitted to make to the intellectual training of the young.⁹

Too many schools have followed this injunction literally!

A good school (shall we say the modern school?) endeavors to reinforce principles taught with first hand experience and to interpret, deepen, and enrich the normal course of living by reading and discussion. But all too often American schools neglect altogether instruction designed to formulate consciously the ideals common to Americans irrespective of religious or other affiliations. Progressive schools tend to abstain from "teaching" the moral and ethical principles implicit within the life they strive so earnestly for young people to live; whereas the conventional school, following abortive efforts to give verbal instruction in the virtues barren of context, likewise refrain from direct moral teaching. Many of these disillusioned educators welcome the intervention of the church on the comforting theory, later to be examined, that morality and religion are inseparable. Seldom do we find schools planning deliberately and carefully their curricula so that subjects "taught" bear directly upon the growing pains of the children they seek to educate. A curriculum of this character is difficult to devise and requires constant re-

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adaptation in the light of the play of circumstance upon children. It cannot operate without trained teachers; teachers imbued with a concern for the total development of children. In short it requires that teaching be a profession and that the school gauge its activities with respect to all aspects of a child's growth. As stated in a recent volume, it assumes that

Teaching exists to promote learning, and the young learn what they live. Hence, teaching in order to foster learning must foster living, the kind of living fit to be learned and built into character. ¹⁰

A third motive inducing earnest people to promote religious instruction through the school is the conviction that moral behavior is not self-sustaining; that it requires the underwriting of religious experience. Since, however, large numbers of children are unchurched and receive no religious education in the home or the church, public welfare demands the devising of ways and means for offsetting this handicap. What more effective instrument can we employ than the school, which reaches all the children of all the people?

A popular expression of this point of view appears in a folder put forth by the Division of Christian Education of the Protestant Council of the City of New York. This states:

What is the situation in religious literacy in New York City? There are 1,250,000 children receiving education in public, parochial, and private schools. Only 700,000 of these children are receiving any organized spiritual nurture. The remaining 500,000 children are a menace to society, to themselves, to our country and our country's future. Spiritual illiteracy must be abolished for the sake of the children and for the sake of the nation. Released time for Religious Education is the next best step we know in stamping out the spiritual illiteracy of our children. ¹¹

Writing in a similar vein, Erwin L. Shaver, Director of Weekday Religious Education, International Council of Religious Education, contends that,

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The fifty per cent of our children who are not now receiving any training in religion because of parental neglect or other reasons should not be denied this most important element in their complete social heritage. When parental indifference or other circumstance has failed to give a child a healthy body, society has stepped in—by means of private or public agencies—to see that he has soundness of health. The same principle has been applied in giving every child his mental training, regardless of whether parents cared or could afford it. This has been done because the welfare of society is at stake. Social welfare is jeopardized as much or even more if any child is denied his right to know and to make use of all that society has learned in the area of religion. Wherever a *cooperative* weekday church school has been in operation, it has succeeded in reaching on the average one third of this neglected half of our children and youth, a remarkable evangelistic record.¹²

We will do well to note the twofold character of this argument on behalf of using the school for the purpose of furthering enrollments in religious classes. In the first place, it is asserted that the affiliation of children with organized religious groups is essential to prevent their becoming a menace to society and to themselves. And, secondly, this assertion rests on the assumption that formal religious instruction is essential for moral health. If we grant the assumption it follows, of course, that the presence of large numbers of unchurched children in the schools testifies to parental neglect, analogous to the neglect of physical health. Consequently it behooves the enlightened minority (since the two hundred and fifty-six religious bodies in the United States include scarcely more than forty-six per cent of the population) to use the resources of the public school in order to further the programs of the churches in religious education.

But what of the basic assumption that moral health requires a foundation in religion? Certainly the conviction is widely held. Is there experimental justification for it?

To this the correct answer would seem to be that the evidence does not sustain this conclusion.

For example, C. V. Dunn in a study entitled, *The Church and Crime in the United States*,¹³ points out that

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within a group of twenty-seven penitentiaries and nineteen reform schools, 71.8 per cent of the population were affiliated with the Christian religion (22.5 Roman Catholic and 49.3 Protestant) whereas considerably less than half of the population of the country as a whole are members of religious denominations. He concludes that there is no reliable evidence to indicate that religious affiliation, training, or conviction either does or 'does not aid in crime deterrence.

Similar conclusions seem to follow with respect to the religious education and affiliations of children. Indeed the study of Hartshorne and May, sponsored by the Institute of Social and Religious Research, and published in 1928-30,¹⁴ clearly sustains these inferences. After investigating the question as to whether or not Sunday School children were more honest than comparable groups not attending Sunday School they concluded that there was no significant relation between religious training and delinquent or non-delinquent behavior.

Dr. George Rex Musall of the Ohio Department of Welfare arrived at much the same conclusion following a comparative study of boys in the Ohio Reform School at Lancaster with a group of law abiding children outside. He could detect no significant relationship between religious training and delinquent or non-delinquent behavior.¹⁵

We shall not belabor the point; nor does it follow that the introduction of young people to their religious heritage is invalidated by studies in delinquency and crime. Obviously other values may reside in the experience. The point is rather identical with that made a few pages back. Faith without works is dead and futile. Verbal instruction by itself carries no assurance that conduct will eventuate in harmony with precepts taught. Only when activities within the school, the home, the community give body and substance to what is taught can instruction influence the springs of conduct.

If it is difficult to establish that religious affiliation and religious instruction in themselves promote morality, it is more difficult still to identify a causal relationship between

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desirable traits of character and those elements of faith which mark off one religious group from another. Who will contend, for instance, that the qualities of a good citizen present in John Smith derive from the fact of his allegiance to Catholicism while similar traits in John Jones are related of necessity to his Protestant background and his Methodism in particular? In short, since similar characteristics of morality are commonly observed in the members of varying religious sects, as well as in individuals altogether devoid of conventional religious affiliations and convictions, must we not look to causes perhaps more basic even than conventional religious belief for an explanation of their common behavior?

Non-Sectarian Instruction Re-Examined

In recent years a group of religious liberals have challenged the place of the secular school in American life and an interpretation of the principles of separation of church and state which lead to the exclusion of religion from public education.

F. Ernest Johnson, for example, questions the common tendency to construe the terms "religious" and "sectarian" interchangeably. It is sectarian instruction, he writes, and not religion that legislation seeks to bar from the schools.

Indeed, it would seem that the use of the word 'sectarian' in constitutions and statutes tends toward a *de facto* interpretation of it: what does not in fact set one sect against another may be regarded as non-sectarian. If this is the case, it may explain the variations in practice in different communities.¹⁶

Johnson also endeavors to define anew the "common elements" in religious faiths that might legitimately find place in the school. "Suppose," he writes,

this 'common' elements idea has to do not with doctrinal statements of what *is* but with those assumptions concerning the good life which hold society together; with belief in the value of reverence and in the importance of belong-

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ing to a worshipping, working religious community; with devotion to ends that find their meaning outside the scope and span of the individual life—in short, if what is meant is acceptance of spiritual values that make for the unity of a dynamic culture, shall we then say that education is not directly concerned in fostering and enriching such religious faith? ¹⁷

William Clayton Bowers argues in a similar vein in his volume on *Church and State in Education*.¹⁸ He begins by conceding that the decision to separate church and state in this country was both wise and inevitable in the early days of the Republic.

As long as religion was thought of in terms of sectarian theology and ecclesiasticism, the problem of the relation of religion to education was insolvable in any terms other than the exclusion of religion from general education.¹⁹

Today, however as he sees it, both education and religion are conceived differently.

Modern education tends to shift attention from "teaching to learning and from passive assimilation of tradition to inquiry, commitment and constructive action."²⁰ Under these conditions education "over-runs the boundaries of any given institution, be it the school, the family, or the church";²¹ and hence to ignore the values and ideals with which young people are to shape their lives is impossible.

So too with religion. Viewed *structurally* it is sectarian and cannot be tolerated in public schools. But religion is not confined to theology, ceremonial and ecclesiastical institutions. Scientific, historical and psychological studies reveal it as a *function* of living, "a phase of a people's total culture."²² Thus conceived it expresses itself in different forms in different times and cultures, even in different regions within the same nation. As a "people's total interaction with the objective world of nature, organized society, and the accumulated traditions of the historic past."²³ it performs a twofold and reciprocal function. It appears as a value that revalues, interprets, and integrates all other values and, it "reacts upon each particular interest and activity as

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a factor of reconstruction.”²⁴ Thus does it offset the divisive influence of specialization peculiar to advanced societies.

Religion insists that it (a special interest or activity) shall be brought under the judgment of all other values and especially that it shall be appraised in the searching light of that organization of fundamental and comprehending values which the religious mind associates with the idea of God.²⁵

When religion and education are both interpreted in progressive terms, these authors believe religion may operate within the school on a non-sectarian basis. Specifically, there are six ways in which religion “conceived functionally and as a phase of culture may be included in the program of the public school.”

1. The schools must of necessity convey knowledge about religion as a moulding force in human history. As Johnson puts it,

The schools should include in the social studies, precisely as they include other aspects of community organization, the institutions of organized religion. Religion, like law, politics and economics, is a kind of *activity* which has always had its most significant expression in institutional forms.²⁶

2. The schools on the college level should likewise include the study of religion as a field of knowledge comparable with “literature, natural science, history, philosophy, the social sciences, and the arts.”²⁷ On the lower levels of education it becomes a legitimate object of study in order that young people may understand “the religious roots of our culture . . . with no other purpose than to enable our youth to understand their own inheritance, and to appreciate it as such.”²⁸

3. “The school can do much in the cultivation of religious attitudes and by the use of ceremonials and celebrations,” which enable young people to understand and appreciate the beliefs and practices of the great religious faiths.

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The school, as the one common meeting place of all component elements in the community, offers an unusually favorable opportunity for such a common sharing of the attitudes and ideals of the various groups that constitute its common life.²⁹

4. Through actual participation within the life of the school community, the school can give the growing person an actual experience of the higher spiritual values involved in the relationships of the school community. Bowers contends that when values such as the worth of personality, social sensitivity, growth in the sense of responsibility and accountability, are raised to a conscious level, reflected upon and used further to enrich experience, they become religious values.

5. Public education can explore the "possibilities of religion as a principle of the integration of education and the culture which education seeks to interpret." According to Bowers,

One of the two functions of religion is to revalue these interests and activities and to unite them into a total meaning and worth of life in terms of its responsible relation to God. Its other function is to subject every practical interest and activity of the common life to cross examination and reconstruction in the light of this core of fundamental values.³⁰

6. Finally both Bowers and Johnson would have the schools experiment with the use of religion in personal guidance. They point to the increasing use of guidance in helping young people to resolve emotional conflicts that lead to frustration and disintegration of personality. Since the resolution of emotional conflicts "involves the organization of ideals, a scale of values, faith in an ordered universe, and a working world view,"³¹ religion seems to them central to the work of the guidance counselor.

Obviously these suggestions are not all of the same order. For example, when carefully safeguarded from sectarian abuse, one, two and three are not unlike the practice commonly followed in good schools. To know about the func-

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tion of religion in history, to share in our common culture, to know and appreciate the origin of principles we prize today (even though we realize that the worth of these principles is not of necessity dependent upon their original grounding) and to enter with understanding, imagination and sympathy into the backgrounds and the distinctive values of those with whom we associate is certainly an essential condition of being educated.

So too with suggestion four so long as the school is content to develop those values which emerge out of common living which the community, irrespective of religious and other differences, share in common. As Brubacher and others have shown in *The Public Schools and Spiritual Values*,

there is a large measure of agreement in American communities on what these spiritual values mean by way of actual personal conduct. Our differences, our lack of community, on them concerns rather the philosophical rationalization and verbalizing of these values.³²

It is indeed a primary function of the school to organize the life of the school and the resources of the course of study to bring into being as conscious possessions the ideals that we as a people live by, the common ideas of our democratic culture.

But need we confuse the issue by calling this instruction in religion? Respect for the dignity and worth of personality, tolerance, fraternity, love of truth and the disinterested search for it, the conviction that knowledge and the power it gives should be used to promote the welfare and happiness of all, comprise common aspirations and ideals which the public school imparts to its children. All can find acceptance, and generally do find acceptance in an atmosphere of neutrality toward rival religions and philosophies.

Indeed, were a teacher to insist that these ways of feeling, acting, and thinking acquire their validity by virtue of their religious origin in the sense of dependence upon a supernatural order in contradistinction to a naturalistic

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order, or vice versa, he would both confuse his teaching unnecessarily and violate injunctions against sectarian instruction.

Much the same holds true of suggestion six. He is a poor counselor indeed who views with indifference the struggles of young people to formulate their philosophies of life. He must stand ready to promote as best he can their efforts to read unity and purpose into their lives. But — be it observed — their purposes are not his purposes! He must respect, in a public school situation, the peculiarities of family background and the unique personality of each young person who comes to him for guidance. His function is to serve as a confidant of all who seek him out or are referred to him. Consequently his resources for assistance will transcend any one parochial view of life, including his own. He will be quick to sense the need for outside assistance, perhaps of priest or clergyman, rabbi or psychiatrist, as circumstances may determine. His objective is thus to help young people to work out their own salvation, attain to self-determining and directive behavior in sensitive response to others — but the path that leads to salvation in each instance acquires appropriateness from the nature and the background and the present experience of the student. Here again an attitude of neutrality toward religion as such is a prime essential.

With suggestion five we begin to encounter difficulty in the conception of religion as a pure "function." It is one thing to describe religion as a function, an operation in which men evolve ideals and use these ideals in the regulation and direction of their lives; and it is altogether another thing to contend, as Bowers contends, that "One of the functions of religion is to revalue these interests and activities and to unite them into a total meaning and worth of life in terms of its responsible relation to God,"³³ or again, to define religion as the process of meeting the need

for spiritual values and convictions that lend meaning and dignity to the life of the common man, and for commitment to those transcendent ends that unite a people in their imagination and emotions in the fulfillment of a des-

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tiny in keeping with the fatherhood of God and the brotherhood of man.

What began as the bare bones of a function has now acquired sufficient flesh to attract the hungry dogs of sectarian controversy!

The truth is that both Bowers and Johnson, while attempting to devise a formula by means of which religion can enter the school without doing violence to the principle of non-sectarian instruction, are guilty in fact of introducing still one more form of sectarian doctrine. They mistakenly identify their own concept of religion with a new common denominator for all religions. Were they to attempt in practice to help pupils to resolve specific problems in politics and economics, or the issues raised by science, as Bowers suggests be done, "in keeping with the fatherhood of God and the brotherhood of man," they would find it difficult indeed to safeguard this all inclusive value from an interpretation offensive neither to Catholic nor Jew nor the members of some one or more of the remaining 256 religious sects now represented in our population.

And were the teacher sufficiently agile to avoid entanglements with the religious sects that derive their ultimate sanctions from "outside the span of the individual life" and indeed outside the natural and social world altogether, what will he do with the children of parents, steadily increasing in number, who hold no less firmly to ideals, but conceive of the creation of these ideals and their use in controlling, directing and reorganizing conduct as a strictly human enterprise? People of the naturalist persuasion are numbered amongst the most intelligent members of our society. They believe that science no longer confirms the traditional division between matter and mind, body and spirit, a natural order and a supernatural order. They earnestly believe that the noble as well as the ignoble qualities of men are natural in their origin, arising out of the interrelationship of men with each other and the forces of nature that impinge upon them. Moreover, they believe with John Dewey that to locate the means and methods of

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ameliorating man's estate outside the natural and social world, undermines his faith in the resources essential for bettering his condition. As Dewey states:

What is the inevitable effect of holding that anything remotely approaching a basic and serious amelioration of the human estate must be based upon means and methods that lie outside the natural and social world, while human capacities are so low that reliance upon them only makes things worse? Science cannot help; industry and commerce cannot help; political and jural arrangements cannot help; ordinary affections, sympathies and friendship cannot help. Place these natural resources under the terrible handicap put upon them by every mode of anti-naturalism, and what is the outcome? Not that these things have not accomplished anything in fact, but that their operation has always been weakened and hampered in just the degree in which supernaturalism has prevailed.³⁴

Be it observed that the issue is not the relative merits of supernaturalism or naturalism. It is rather the plain fact that both groups are found in considerable numbers in our body politic and both are to be respected. To take adequate account of the naturalist as well as the supernaturalist we shall have to expand the conception of sectarian doctrine so that the school can promote a respect not only for all religious sects but as well for the convictions of those who find no place within traditional religious organizations.

Nor can non-church members be accused of indifference to the spiritual welfare of their children by virtue of the fact that they are unchurched. To imply that the children of the unchurched constitute a menace to society and to themselves, or that these parents are neglecting the spiritual health of their children is, of course, to catalogue oneself as both intolerant and uninformed.

A final reason may be offered on behalf of conscientious adherence to non-sectarian instruction in the schools. Modern life is closely interknit. New and improved means of communication and transportation will increase the heterogeneity of our people in the future. Our population in this country will continue to be a coat of many colors. The principle of separation of church and state was hit upon as

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a device for insuring a friendly neutrality as between Protestant sects. It soon became necessary to expand the notion and the methods derived from this notion to include a respect for Catholics and Jews as well. The logic of events suggests a similar expansion today so as to embrace a respect for the children of faiths other than Christian. Indeed the portals of the American school should be wide enough to admit without discrimination the children of all the peoples of the earth.

This suggests on the one hand an educational program designed to promote understanding and appreciation of the cultural contributions of all cultural groups to American life, and, on the other, extreme caution in forming entangling alliances under the guise of "cooperative relations" between the school and church groups that might militate against these selfsame efforts at mutual understanding.

Moral Education Without Religious Entanglements

But, it is asked, "How, without religious instruction, shall we insure more serious attention than schools now give to character development?"

To this we reply, "By utilizing in education the modern resources of knowledge and procedure that contribute toward healthy personality development.

This involves, first, the identification of teaching with guidance. Studies in child development render clear the dependence of intellectual functioning not only upon physical health but upon emotional and social health as well. It is no accident that a significant proportion of child delinquents begin as learning problems in school. Taught in one way the three R's can create feelings of inferiority, fear, a sense of being different from others; taught in another (with a sense of achievement encouraged and as obvious means for creative relationships with others) they lead to happy and constructive attitudes towards oneself and the world. There exists now a wealth of data from child guidance clinics and psychological laboratories, professional data upon which all teachers can draw, that make

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clear the growing needs of children and the instrumentalities for meeting these needs through the ordinary experiences of the classroom and the school. This information enables schools to introduce children to the "arts of communication" so that these arts become in very truth the means of communication between free personalities; free personalities in the sense that they can communicate with others devoid of the misunderstandings that follow from inhibiting emotions and fears and distorted visions of the world and of people.

Secondly, teachers can organize life within their classrooms and the school so that children from the very youngest years learn to participate under guidance in planning and controlling their conduct and behavior; in setting and maintaining the tone and quality of their relations with each other. This enables them to identify and to use the standards and the values they live by. In this way and this way only will ideals and principles become bone of their bone and flesh of their flesh. It is out of our immediate relation with our fellows that the seeds of respect for personality and appreciation of differences are first sown. And it is from sharing with our immediate companions the product of our labors and our ideas that we catch the first faint notions of the principle (not to be fully understood or consciously formulated perhaps until many years later) that self-expression attains its most adequate realization when it serves as a condition for the distinctive self-expression of others. And, finally, it is from the habits early acquired of pausing when conflicts arise between ourselves and others in order to consider all the issues involved, the rights and the wrongs, and to search out some overarching principle or some practical suggestion, that will resolve the issues or point to a more desirable solution than "fighting it out"—it is out of these habits that democracy as a moral ideal acquires moral fibre.

Laying the basis for free communication between healthy personalities involves the school of necessity in programs of parent education and stimulates a host of fruitful relationships between the school and the community. But it has its

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academic applications as well. It necessitates the *humanizing* of much of the curricular work of the school. The recent emphasis in curriculum studies upon the needs of children and young people and investigations into the resources available for meeting these needs illustrate what we have in mind. The studies of the Commission on the Secondary School Curriculum of the Progressive Education Association some years ago bore directly upon this purpose.

Take, for example, the report on *Science in General Education*.³⁵ This report devotes five chapters to the needs of young people in the area of personal living, in immediate personal-social relationships, in social-civic relationships, and in economic relationships. In each case the resources of science in material and procedure are drawn upon to illustrate how adolescents can meet their needs in harmony with desirable characteristics of personality. Similar studies of the Commission in the social studies, in literature, in art, in mathematics follow the same plan. Indeed, it is fair to say that the emphasis of all the major studies in the reorganization of the curriculum of elementary and secondary education, and higher education, in recent years centers upon promoting character development through education.³⁶

We conclude that the school will do well to explore these possibilities further, rather than to surrender to others its primary task. A reversion to religious instruction either within the school or outside the school walls, nourished and sustained by the authority of the school, may seriously disturb, if it does not divert this promising trend in education. There is danger that this reversion will encourage the school to delegate to other agencies the responsibility that it alone can discharge: the responsibility for cultivating common ideals, standards and ways of living in young people who vary otherwise in religion, in race, in nationality, and in socio-economic status.

We have suggested that the years ahead may augment diversity and difference in our population. New instruments of communication and easy passage to and fro upon the earth will cause our children in the future to rub shoulders with the children of all races and religions. They

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must learn to respect and to deal justly with all manner of men.

It is fortunate that we have at hand for this purpose the secular school developed out of our experience thus far with the varying constituents of our population. Basic to the integrity of the secular school is the principle of non-sectarian instruction, also an outgrowth of our experience. The critically important question our people now face is whether to scrap or to develop further these instruments. Shall we revert to religious instruction on school time and with the assistance and support of the authorities of the school? Or, shall we extend further the principle of non-sectarian instruction, first devised to satisfy rival Protestant groups, and later extended to embrace Catholics and Jews as well, to the point where respect is assured to all religions and philosophies represented in our population with propaganda privileges accorded to none?

NOTES ON THE CHAPTER

1. Reported in *Information Service*, Federal Council of the Churches of Christ in America, XIX (December 28, 1940).

2. Conrad Henry Moehlman, *School and Church: The American Way* (New York: Harper and Brothers, 1944), p. 11. See chapter II on "The American Protestant Age."

3. *The Rise of American Civilization* (New York: The Macmillan Company, 1930), p. 813.

4. For an excellent review of this period, see Howard K. Beale, *A History of Freedom of Teaching in American Schools* (New York: Charles Scribner's Sons, 1941), pp. 207-218.

5. *Ibid.*, p. 211.

6. For a general description of cooperative relationships between state and local school systems and religious groups, see, *Weekday Classes in Religious Education*, Bulletin No. 3, 1941 (Washington: Federal Security Agency, Office of Education, Government Printing Office).

7. "The Spiritual Values of the Secular Public School," in Brubacher and others, *The Public Schools and Spiritual Values* (New York: Harper and Brothers, 1944), p. 75.

8. For an interesting and disturbing account of the influence of these groups upon programs for the amelioration of social and economic conditions, see Edward C. Lindeman, "Trouble at the Grass Roots," *Survey Graphic*, XXXIII (June, 1944), 280-282.

9. Robert Maynard Hutchins, *The Higher Learning in America* (New Haven: Yale University Press, 1936), p. 69.

10. Brubacher and others, *op cit.*, p. 110.

11. This folder is entitled *Protestantism Unites in Christian Education, a*

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Practical Program, and is published at 19 West 44th St., New York 18, New York.

12. "The Weekday Church School — Opportunity and Challenge," *Information Service*, Department of Research and Education, Federal Council of Churches of Christ in America, XXII (May 29, 1943).

13. C. V. Dunn, "The Church and Crime in the United States," *The Annals of the American Academy of Political and Social Science*, CXXV (May 1926), 200-228.

14. Hugh Hartshorne and Mark A. May, *Studies in Deceit* (New York: The Macmillan Company, 1928), vol. I of three volume series entitled *Studies in the Nature of Character*, pp. 356-367.

15. Quoted by Dr. Negley K. Teeters in an address before the Conference on the Scientific Spirit and the Democratic Faith, in May, 1943, on "The Role of Religious Education in Delinquency and Crime" and published in *The Arbitrator*, XXV (July-August 1943), 4-5.

16. *Information Service*, *op. cit.*, Dec. 28, 1940.

17. *Ibid.*

18. Chicago: University of Chicago Press, 1943.

19. *Ibid.*, p. 26.

20. *Ibid.*, p. 45.

21. *Ibid.*, p. 46.

22. *Ibid.*, pp. 47-48.

23. *Ibid.*, p. 49.

24. *Ibid.*, p. 49.

25. *Ibid.*, pp. 49-50

26. *Information Service*, *op. cit.*, XXII, No. 1, Pt. 1, Jan. 2, 1943.

27. William Clayton Bowers, *op. cit.*, p. 63.

28. F. Ernest Johnson, *op. cit.*, Jan. 2, 1943.

29. William Clayton Bowers, *op. cit.*, pp. 67-68.

30. *Ibid.*, p. 68.

31. F. Ernest Johnson, *op. cit.*

32. Brubacher and others, *op. cit.*

33. *Op. cit.*, p. 70.

34. "Anti-Naturalism in Extremis," *Partisan Review*, X (January-February 1943), 33.

35. Report of the Committee on the Function of Science in General Education, Commission on the Secondary School Curriculum, (New York: D. Appleton-Century Company), 1938.

36. See particularly in this connection the general report of the Commission on the Secondary School Curriculum prepared by V. T. Thayer, Caroline B. Zachry and Ruth Kotinsky, *Reorganizing Secondary Education* (New York: D. Appleton-Century Company, 1939); and *Learning the Ways of Democracy*, a case book of civic education, by the Educational Policies Commission, National Education Association and the American Association of School Administrators, Washington, D. C., 1940.

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CHAPTER XXVIII

ADULT EDUCATION

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Adult education itself is much older than its name. It has existed since man first gathered around the tribal camp fire to "talk things over." Like so many other things in our national life, both the name and some of the forms of adult education came from England. In the 1870's Cambridge University invented the form of service now called University Extension, and in 1904 that university joined with Oxford in instituting what has become the bedrock of English adult education, the University Tutorial Classes. In these, groups of people numbering about thirty, usually working men, enroll for a three years' course of study under the direction of a university professor. But the term "adult education," while it may have been used a few years earlier, became a common one in England after a deputation of adults from Rochdale came to Oxford in 1907 to interview the university authorities, and to demand some more systematic form of cooperation than that afforded by the University extension movement of the day.

Again, like many of our institutions which have their root in English theory and practice, the evolution of adult education in the United States has taken quite a different form here than in England. In the latter country the universities play a much larger part in the direction of the movement than with us. For example, in England the term

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"workers' education" has become almost synonymous with "adult education," because the vast majority of adult groups pursuing some form of study have been organized under the auspices of a trade union. That this close tie-up of the university and the English workingman has been good for both goes without saying.

It has become quite commonplace, and is correct, I think, to trace the beginning of adult education in this country to the Lyceum movement inaugurated in New England in the 1820's by Josiah Holbrook. In fact, Eduard C. Lindeman has called Holbrook "... the father of the American adult education movement."¹ The Chautauqua of the last generation, the Town Hall programs and the public lectures in many communities today, commonly miscalled forums in contradistinction to real forums, are the direct descendants of the early lyceum. Valuable as these are, they have little in common with their parent institution. In the article by Lindeman already quoted, he goes on to say,

Daniel Webster presided over the Boston Lyceum; he was home talent. Together with his neighbors he discussed the major topics of the day; tariff, education, national banking, slavery, etc. The modern lyceum may be described as a miscellaneous gathering of people who pay to hear an imported speaker or entertainer who makes lecturing his profession.

If one were to enumerate the institutions or agencies engaged in some form of adult education in the United States today the list would run as follows: schools, libraries, churches, newspapers, radio, study clubs, motion pictures, the theatre, prison education, university extension departments, agricultural extension divisions, workers' schools under the auspices of some college or university, and the education departments of great national trade unions, such as the International Ladies Garment Workers and the Amalgamated Clothing Workers. While recognizing the very educational work for adults being done by all of these agencies, a discussion of much of it is beyond the space at our disposal. We shall limit our discussion to what might be called "conscious" adult education, so we shall discuss

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only the activities of educational institutions, the university, the college, the high school, and departments of education, national, state, and local.

Most of the larger universities and some colleges operate what is known as extension divisions. In the early days of university extension development in the United States, and that means the 1890's, a visiting English professor said the word "extension" in this connection was to be understood in three senses: (1) higher education extended to the people, (2) education extended throughout life, and (3) university learning extended to all the interests of life. In the early days of university extension work, and to a certain extent yet, it was simply off campus work by university professors, under university traditions and methods, and with university examinations and credits. One school of adult educators which might be called the newer or non-traditional school is quite critical of this branch of adult education; for its very nature excludes the masses of the people from availing themselves of it, since they cannot meet the entrance requirements of the university. Such criticism has its effect, for there has been a noticeable change in recent years in off campus work of many universities. A steadily increasing number of universities, especially those in or near large cities, have a "down town college," a "metropolitan college," an adult education department—the name varies—which offers a variety of courses to the adults of the community either with or without credit. But the university tradition of the formal lecture, and of the dogmatic, unchallenged statement, is apt, to obtain in all of these. In one university, New York University, for example (and there may be others with which the writer is not familiar), the off campus work of the department of general education is *restricted* to men and women who are *not* studying for credit. "Consequently," said Dean Ned H. Dearborn, in describing the project, "the instruction is not bound by the formal requirements of the university curriculum..." This meets the hearty approval of the newer school of adult educators.

While it is recognized that there are various agencies in every community carrying on some form of adult edu-

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cation, yet the fact remains that the vast majority of the three million adults who, it is estimated, are pursuing some form of adult education in this country, are in programs sponsored by public school authorities. The sponsoring agency may be a state department of education, a county superintendent's office, a local board, a high school, or a junior college. At the risk of too great simplification one may say that most adult education programs follow the general pattern outlined below.

I. Work with foreign born:

- a) Citizenship
- b) Language
- c) Adaptation

II. Vocational:

- a) Commercial
- b) Industrial arts
- c) Domestic arts

III. Avocational:

- a) Industrial arts
- b) Domestic arts
- c) Art
- d) Music
- e) Dramatics and public speaking
- f) Foreign languages

IV. Physical education

V. Social-cultural:

- a) Parent education
- b) Personal growth and development
- c) Group discussion of current events
- d) Public forums

In addition, in the more highly organized programs, provision is made for what is commonly called deficiency education. Where this is the case, it is possible for the adult man or woman whose secondary schooling had been interrupted, to obtain credit toward a high school diploma, and in a few programs there is even opportunity to earn college credits. But speaking generally, the vast bulk of the offerings of the average adult education program is made up of non-degree, non-credit courses offered for the primary purpose of better adjusting the individual to the society in which he lives.

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Terms and Names

The institution which carries out the program of adult education, whatever its extent or content, is usually called a "school"—evening school, evening high school, or adult school, and it, in truth, has many of the earmarks of the regular school,—bells, seats, classes, teachers. There are some who feel that every term and every form which bears any resemblance to the traditional school is a detriment to any adult education program; that they frighten away adults who otherwise would avail themselves of it. There is no doubt that the word "school" for many people raises visions of discipline and rows of hard seats in which one must sit for a given period of time; while the word "teach" is associated with an austere individual with authority and whose statements one would never think of questioning. Those who hold such ideas feel that much would be gained by a complete substitution of names and terms; for example, leader for teacher, group for class, and some such terms as "the adult center" for the term "school." The group of adult educators holding these views has fervently hoped that some inspired person would even find a substitute expression for adult education. The latter is probably with us to stay, but there are adult education programs that operate at an adult center and in connection with whose work the terms "teacher" and "class" are not **used**.

Determination of the Adult Curriculum

What should determine the contents of the curriculum offered by an adult school? That question has long bothered adult education administrators. Some of the determining factors usually listed are: community demand, community interest, available teachers, available equipment, social need, student demand. Administrators differ as to how much attention should be paid to *demand*. Some administrators are inclined to lead, to create a demand for worth-while additions to the curriculum. For example, a community may never have experienced a real forum, con-

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sequently there is no demand for one; yet when one is established it goes well and fills a great social and intellectual need. There are some who would add one other determining factor to the list given above, and that would be the community's ability to support. But this is answered by the assertion that the community can and will support anything it wants, or is made to want. The result is, of course, that adult education programs differ greatly from school to school, and from community to community. It is the conviction of the writer, however, that two factors, more than any of those given above, determine the extent and the content of the program of any adult center or school. They are (1) tradition and (2) the educational philosophy of the director, principal, or administrator, whatever his title. This leads directly to the next phase of the subject to be considered.

The Evolution of the Adult Program

Tradition determines the fact that vocational education dominates most adult educational programs in this country. This is easily understandable in view of the fact that one of the main roots of the movement stems back to the Mechanic's Institute and similar organizations of a century ago. Today, in many cities, from one-third to one-half of those enrolled in adult education courses are in courses that are classified as vocational, and which have the avowed aim of perfecting or increasing the skill of the student so that he will be able to command a higher wage. The traditional school of adult educators believes that the chief aim and justification of adult education is to do that very thing—increase a man's skill and thereby increase his earning power.

Tradition also determines the fact that classes that prepare the foreign born for citizenship form a large part of the adult education program in many communities. This phase of adult education arose in the days of heavy immigration and the later enactment of laws requiring some knowledge of the English language and of our political institutions as prerequisites for citizenship. While

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the need for this kind of service is a steadily diminishing one in most communities, the prestige of adult education in this field has recently been greatly enhanced by the practice of some judges and federal examiners of accepting the adult school's certificate of proficiency in lieu of the much dreaded examination in open court.

Now let us turn to points on which the educational philosophy of the administrator determines the content and the aim of the adult education program. Citizenship classes, which we have just been discussing, are an excellent place to begin. Formerly these were called Americanization classes, and the philosophy back of them was narrow and nationalistic. It was all too common practice to take, let us say, a cultured and perhaps highly educated Dane or Yugoslav, ignore all the cultural contributions of his native country, and try to make a hundred-per-cent American of him. As early as 1907 one state (California) department of adult education dropped the word "Americanization," because it began to carry on its work with foreign born adults upon a quite different philosophy. It still sought to make intelligent Americans out of them, but at the same time to encourage them to keep a knowledge of their native tongue, and certainly not to forget the cultural achievement of their fathers. The new aim, as one person phrased it, was "...to combine the best of the old with the best of the new." This states succinctly the new philosophy of work with the foreign born.

How much attention is given to those subjects and activities which fall under the classification "social-cultural" depends almost entirely upon the educational philosophy and the interest of the director of the program. A few years ago in a city that had 130,000 persons enrolled in its adult schools, a study was made of the distribution of its adult students. This study showed that 32.93% were enrolled in strictly vocational courses, while only 2.98% were in subjects that could be classified as social-cultural. This particular adult education program was an excellent one from the traditional standpoint, and did not differ much in its emphasis from the usual one. By way of contrast there was in that same state, and at

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the same time, in a city of 75,000, an adult education program with quite a different emphasis. This second one, while it provided opportunity for the traditional subjects of citizenship preparation and increase of vocational efficiency, laid its greatest emphasis upon subjects of quite a different sort. Here are some of them taken from its 1940 Handbook:

Newspaper Night
Nature of Civilization
The New Continent of Conflict
The Situation in the Orient
Winter Fireside Biography: William Randolph Hearst
Report on Scandinavia.
Paradises of the Pacific
The Assault on the Mind: Propaganda
The Teutonic Soul
The Latin Soul
Everyday Appreciation
What Goes on in the Art World.
Oriental Art and Culture
The World of Opera
Musical Biography: Mozart
Science and Life in 1940
You and Society

In addition, there were five offerings under the head of Psychology beginning with Patterns of Behavior; five offerings under Philosophy beginning with one on Emerson; two offerings under Domestic Relations, and finally, the weekly city wide forum of twelve discussions on Great Britain and nine on Italy. This particular program² has been cited at length because it is the outstanding adult program of which the writer has any knowledge in the breadth and the scope of its educational philosophy and in its emphasis upon non-vocational subjects. It is an example of a great break with traditional adult education.

The Philosophy of Adult Education

The philosophy of adult education rests upon two basic assumptions: 1) that adult education is needed, and 2)

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that adults have the ability to learn new things to a much greater extent than was formerly assumed to be the case. A corollary to the second assumption is another one, that where there has been any diminution in the ability to assimilate new facts, that loss is oftentimes more than compensated for by interest and experience. Let us look at these two assumptions in more detail.

That the United States was becoming a nation of adults was first called to public attention by the 1930 census. A study of this showed that between 1920-1930 the number of people between the ages of 45-64 had increased one-fourth; while the number between 65-74 had increased one-third. Other studies show that nearly half the adults in the United States have never completed the eighth grade, yet as citizens they have many serious problems to solve which did not exist a generation ago, and for the solution of which their previous schooling, no matter how extensive, has been little or no preparation. For example, here are some of the problems facing the electorate of this country as these words are being written: Should the United States subordinate its sovereignty to an international organization? Should the United States tie its currency to that of other great nations for the sake of monetary stability? How far should the people of the United States use their great resources for the rehabilitation of backward peoples and backward areas? We might continue the list of important questions which confront the citizen today, but which would have been incomprehensible to our grandfathers. It is considerations such as these that led a friend of the writer to say, "Rip van Winkle may go to sleep with a college education, but twenty years later he will wake up a very ignorant person."

The machine is bringing increasing leisure to the western world, both in and out of the home. It is quite evident that leisure, if wrongly used, may be either a poison or an opiate; but if well used, it may be a source of deep and enduring satisfaction. It was some such considerations as these that caused James Harvey Robinson to write:

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As leisure and opportunity increase, more and more people will set themselves to modifying, in the light of new information and conditions, their immature perspective, prejudices, and general estimate of themselves and their surroundings.³

Because of the increase in the proportion of adults in our population; because these adults face problems for which their formal education has not prepared them; because of the great gap between our technical advance and our social knowledge; and because of the increased leisure of all classes, the need for a constantly enlarging program of adult education would seem to be demonstrated. But what about the ability of the adult to learn new things? We have changed our minds greatly on this question in recent years? For many years educators had accepted the dictum laid down by William James:

Outside of their own business, the ideas gained by men before they are twenty-five are practically the only ideas they shall have in their lives. They *cannot* get anything new. Disinterested curiosity is past. The mental grooves and channels set, the power of assimilation gone.⁴

Adult educators had long come to doubt the validity and the soundness of this pronouncement on the learning ability of adults, but they had no authority of equal standing to counteract the theory of James until the Thorndike study⁵ appeared in 1928. In this study, which was initiated and financed by the American Association for Adult Education, Thorndike proved conclusively that while the learning capacity reaches its peak at 20 the decline to 55 is so small as to be negligible. Moreover, he came to the conclusion that whatever learning ability the adult may lose due to advancing years is more than compensated for by increased interest and realization of need.

To what has been said above under the head of the philosophy of adult education all adult educators would agree, but there is a sharp division among them as to where the emphasis should be placed in meeting adult

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needs. There is one group, the largest, it must be admitted, which thinks of adult education primarily in terms of enabling adults to make up deficiencies in their schooling, and of enabling adults to perfect their skills, or acquire new skills and thereby increase their earning power. This group might be called the "bread and butter school" of adult educators, but perhaps the term "vocational school" is a better one. The writer belongs to a group that would like to see the emphasis in adult education placed elsewhere than upon increased earning power, or than upon making up deficiencies in previous education. They are not unaware of the great need and the great good done in the fields of vocational and efficiency education. It is simply a question of emphasis and relative importance.

The school of adult educators which is critical of traditional practices has never been given a name, but it might be called the "non-traditional school" or the "newer school." Those composing this group believe that the chief aim of adult education should be to help mature men and women to develop an efficient and well integrated personality which would enable them to adjust themselves more happily and effectively to the world in which they live. They believe little is accomplished by increasing the vocational efficiency of a man, and thereby his earning ability, if that man does not think of himself as a member of society to which he has the definite responsibility of becoming increasingly literate, both socially and economically. Unless this is done for a man, the more skill he has and the more money he can earn, the greater harm he can do. Dr. Harry Overstreet has said that he is primarily interested in "keeping grown-ups growing." The newer school of adult educators would accept that statement as expressing the primary aim of adult education.

Purpose and Need

In 1920 the Workers' Educational Association of England, which had sponsored the remarkable adult educa-

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tion movement in that country, decided to appraise its work. It appointed an Adult Education Committee under the secretaryship of Arthur Greenwood to summarize the purpose of adult education and to state the need for it. The committee's summary, in the opinion of the writer, could not be improved upon whether one is talking of England or the United States, so it is quoted in part below:

- (1) Adult education is founded on permanent needs.
- (2) These needs are not met by the development of the education of children or adolescents.
- (3) The need for adult education arises from
 - (a) The desire for knowledge and personal development;
 - (b) The desire to lay the foundations of more intelligent citizenship, and of a better social order.
- (4) There should therefore be ample opportunities in the community for adult education. ⁶

Methods

Adult education is essentially social. It is group education rather than individual. So the leader (teacher) of the adult group (class) who uses the methods of instruction common in high school, college, and university, is almost certainly doomed to failure. Incidentally, many college and university teachers are very unsatisfactory and unsuccessful adult teachers, for the reason that the system of "oracle speaking" and of the "unquestioning listener" simply will not work with mature men and women in an adult education group. Adult education assumes a great untapped reservoir of information and ideas in the mind of the average man. He has at least *his* experience which can be his unique contribution to his particular group—a contribution that will differ from that any other person can make. The skillful leader must somehow tap what we have called each member's reservoir of experience and information and make it a part of the lesson material. Or, to change the figure a trifle, someone has said that adult education draws the living water of knowledge from a

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running stream, and not from a stagnant pool. The method by which this is done is by encouraging group participation, by wisely guided discussion. This is what E. C. Lindeman has in mind, in the article already quoted, when he says, "In one sense, organized discussion is to adult education what scientific method is to science."

Naturally there can be no one method prescribed for adult teaching in view of the great variety of offerings of a large and well organized adult school. The principal of one such school⁷ has prepared the following list of methods and the fields of adult education in which they can be used:

METHODS

1. Recitation	12. Laboratory and work-shop
2. Group discussion	13. Tutoring
3. Panel	14. Seminar
4. Symposium	15. Group conference
5. Forum	16. Individual conference
6. Project (Individual Group)	17. Visual: moving pictures, slides, charts, etc.
7. Demonstration	18. Correspondence
8. Conference	19. Listening groups (radio, phonograph)
9. Lecture	20. Appreciation: art, music, drama, etc.
10. Report	21. Observation
11. Round Table	22. Analysis and criticism
<i>Fields</i>	
Vocational -----	6-7-8-9-12-17-18-19-21-22
Workers' Education -----	2-6-12-15-17-19-21-22
Public Affairs -----	2-3-4-5-6-9-11-17-18-19-21-
Parent Education, Nursery Schools and Homemaking -----	2-6-7-9-10-12-17-21-22
Literacy, Naturalization -----	1-6-7-13-16-17-19
Appreciation -----	7-9-10-14-15-17-19-22
General Adult -----	1-2-3-4-7-9-10-11-12-18-21-22

The matter of method can be summed up by saying that wherever discussion can be used, it should be used in all fields of adult education; for as someone, to whom the writer is unable to give credit, has said of discussion, "It bespeaks confidence, it supplies facts, it weighs opinions, it sifts superstitions and prejudices from truth." So important is discussion in adult education that some further aspects of it will be considered in the next section.

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Group Discussion

Group discussion is the oldest known form of education—talking things over, as we sometimes phrase it. This method has been called “the great-grandfather of educational procedure.” Before the invention of writing, the lore of the tribe (civilization) was passed on in this manner. After the invention of printing, with the rapid multiplication of books, the printed page came to be worshipped by educators. Books may supply information, but traditions, ideals, standards have come from talk-talk around the camp fire in the cave, around the stove of the country store, in the pool hall, on the playground, and most important of all, around the family table.

Group discussion falls into three well defined forms:

1. *The forum.*

A forum might be called a formal discussion group. The subject matter will usually be a question of public nature and, therefore, timely in its appeal. That also means that it will often be of a controversial nature. But it is on controversial subjects that full and free discussion is so needed. In the Greenwood report, previously referred to, this question of the discussion of controversial subjects was fully considered. The conclusion arrived at was:

Controversial subjects cannot be excluded from adult education, as the desire for knowledge upon them is the mainspring of the demand made by many people for facilities to study, and it is in the best interests of the community to encourage every type of student to think out and state his position.⁸

The writer finds himself in full agreement with this statement, with emphasis upon the word “cannot” in the first sentence of the quotation. One can hear plenty of *ex parte* discussion of highly controversial questions, but such discussion usually adds little to one’s knowledge.

The success of a forum depends very largely upon the leader. His leadership must be marked by kindness,

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tolerance, freedom from dogmatism, and deep respect for the opinion of others. Part of the success of a forum also depends upon its length. Long experience in this field has convinced the writer that ninety minutes is the maximum time a forum should run, with the time divided between the leader and the group in the ratio of one hour for presentation to a half hour for discussion. Any variation from that ratio should be in the direction of reducing the leader's time and increasing the time of the audience participation.

The name of John W. Studebaker, United States Commissioner of Education, has become associated with the use of the public forum as an instrument in civic education. Anyone interested in learning more about the most comprehensive forum program (Des Moines, Iowa) ever undertaken in the United States, and one that pointed the way that other cities might follow with civic profit, may learn about it in Commissioner Studebaker's own words.⁹

2. The panel discussion

This is not usually successful. The scheme is to have a small group, supposedly well informed on the announced subject, discuss the subject among themselves for a period of time, and then to throw the discussion open to the general audience, the members of which may make comments, or may direct questions to any member of the panel. This type of discussion requires an unusually skillful chairman, and works best when the subject is a controversial one, and when the panel has been deliberately chosen with some members definitely committed by conviction to one side and some to the other.

3. Informal discussion groups

One goes to a lecture with the idea that he is going to listen, but when one joins an informal discussion group, it is with the intention of participating in the discussion. The forum speaker does not consider his performance a success unless he has made clear all his principal points; while a

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discussion group leader does not think his performance a success unless all members of the group have participated. Such a group should be small in number. Fifteen to twenty is ideal. The seating arrangement is important. If the number is not too large, a good arrangement is to gather around a table, or have the chairs arranged informally with the members free to knit or smoke or carry on any other activity that does not interfere with the main purpose of the meeting.

Two objections are commonly made against all forms of discussion groups. One is that they give an opportunity for one who does not know much to talk too much. This same objection is sometimes put in the form that discussion is a sharing of ignorance. The answer to this objection is that people know more than we think they do. Besides, if one happens to believe something which is not true, discussing brings it out into the open. Another sweeping objection urged by many people is that discussion is a waste of time since it never seems to get anywhere. Certainly; for the fundamental reason that in most of the subjects forming the basis of public discussion there is no absolute truth.

The Teacher

As has been said above, the college and university teacher oftentimes does not make a good adult teacher; for dogmatic presentation, which has a big place in much of the teaching on the so-called higher levels, has no place in adult education. The teacher is a leader and a learner along with his group. There are several *musts* for the teacher of adults. Like any effective teacher, he must know his subject and he must like to teach. More important, perhaps, than those two things, he must like people. In addition, he must have spontaneity; he must be able to think originally; his knowledge must, in part at least, have been discovered by himself; he must know his community; he must be able to call forth enthusiasm; and finally, he must have a wholesome personality. Is it not clear that it is not simply desire to be different that leads the non-traditional-

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ist school to prefer the word "leader" to the word "teacher"?

To date, the majority of teachers in the field of adult education have had no special training for the teaching of adults; for, until recently, there was no place where one could get such training. But within the past ten years courses in some phase or other of adult education have been added by many colleges and universities. The most ambitious program of this kind is the Institute of Adult Education of Teachers College, Columbia University. The Institute was founded as a result of a grant from the Carnegie Corporation sufficient to insure its operation for the first ten years, in the expectation that at the end of that time it would be adopted by the University as an integral part of its program. By the terms of the grant the American Association for Adult Education became in effect a subsidiary of the Institute. Things stressed by the Institute are (1) training of adult leadership, (2) development of materials of instruction, (3) a study of methods and procedure.

Financial Support

Should there, or should there not, be tuition charges for adult education? On this question there is considerable difference of opinion. Chambers of commerce and taxpayers' associations are sure the answer should be yes. Their argument runs as follows: the students, as adults, presumably are working and have regular income; therefore, they should pay. Moreover, they say, there must be a limit where society's responsibility ends for a citizen's intellectual development, and the individual's responsibility begins. In one state with a very well developed program of adult education, an attack upon the program by the state chamber of commerce was on the basis that adult education was not ". . . a part of our original theory of public education." To this one could make the rejoinder that it is not very many years ago that the common assumption was that society's responsibility ended with the individual's acquirement of the merest rudiments of common schooling—the three R's. Gradually the conception of public responsibility

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for education was extended downward to include the kindergarten and the nursery school, and upward to include the secondary school.

If the chief purpose of public education is to make "good" citizens, and since the term "good citizen" in this connection means an informed and intelligent citizen, it is obvious that this cannot be done completely in the first grade, the tenth, or even in college, but is a never ending, never completed process. The logical culmination of this line of reasoning would be that the state should provide for the continued intellectual growth of every citizen with ambition to know more about the society of which he is a part.

Among adult educators themselves there is some difference of opinion whether there should even be a token charge, called a registration fee, or by some other name. The prevailing practice is to make such a charge for all classes except those composed of persons preparing for citizenship examinations. There is no difference of opinion that in vocational and avocational classes the student should pay for the material used, with the state paying the instructor and furnishing the place of meeting, exactly as it does to the elementary and secondary student.

The Aim

At a Conference of the World Association for Adult Education held at Cambridge University a few years ago one of the leaders of the English adult education movement said that the aim of adult education was, "... the development of an efficient and rightly integrated personality, able to adjust itself to the world in which it lives and to the ultimate spiritual forces that lie behind it."¹⁰ In the same address Dr. Masterman also said that one of the aims of adult education is to create a fully educated man, and then proceeded to define a fully educated man as one "... who can act effectively and think accurately and feel rightly."

When Dr. Alexander Meiklejohn was setting up the San Francisco School of Social Studies, an adult education

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project, he described it as one whose aim was, ". . . the creation of an active and enlightened public mind. The deepest question in American life today is . . . the thinking power of a democracy."¹¹ While differing from Dr. Meiklejohn in his emphasis upon a knowledge of great books of the past as fundamental to an understanding of the present, the adult educator of the newer school would agree heartily with Meiklejohn's statement of the aim of adult education and the need for it.

At the risk of repetition, let it be said again that the primary emphasis of any particular adult school will be largely determined by the educational philosophy, and the life philosophy, of the director or principal. We shall close this part of our discussion by paraphrasing the aims of an adult education program in a California community of 10,000 as stated by the director, herself a citizen by adoption, with a keen sense of the hopes, aspirations and problems of the foreign born. As she saw her responsibility to both the native and the foreign born of her community, it was to make the "adult center a home for inspiration, information, friendship and good citizenship; to give insight into American institutions; to aid in the better use of leisure time; to break down race prejudices; to further skills in the creative arts; to stimulate thinking; and to stimulate and foster free discussion." What a challenge!

Conclusion

The writer knows of no more thrilling experience than to approach at night a great publicly owned school building, which traditionally is used only seven or eight hours out of the twenty-four, and to find it brilliantly lighted and a hive of activity, not of youngsters, but of a cross section of the manhood and womanhood of the community, ranging in age from twenty to seventy, engaged in a great variety of pursuits, few of which are motivated by mere pleasure. Deeply as such a sight stirs him, he has never been able to phrase a description of an adult school in action as well as a student of his did, who had been assigned, along with other members of a class in adult edu-

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cation, to visit the local adult evening school and to write his chief impressions of it. This particular student, after listing many of the classes visited, and after noting the minimum amount of lecturing and the great amount of group participation in practically all of them, wrote:

The . . . impression that I received was of the different walks of life or grades of society represented there. The college graduate met with the grade school alumnus in one room. The uneducated foreigner was next door. In the same class with the latter was the highly educated foreigner who was seeking admission to United States citizenship. Home makers, business men and women, doctors, lawyers, teachers, all working or playing side by side with no thought of snobbery and very little of inferiority.

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CHAPTER XXIX

PHYSICAL AND HEALTH EDUCATION

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'Will you tell me which way I ought to go from here,' said Alice.

'That depends on where you want to get to,' said the cat.

These lines portray the dilemma of many an educator of the twentieth century. Leaders in physical education and health education are no exception. Among them are some who are seeking a way, like Alice. Others can answer no question of direction except in terms of the end to be reached. Many persons are concerned with methods, techniques, doing things, going places. Fewer have thought out the goals, purposes, and fundamental values in education.

In the educational philosophies discussed in the opening chapters of this book are the goals and purposes of physical education different in the different systems? For example, are the aims and functions of physical education in good Catholic schools different from those in the best "progressive" schools? There are almost certainly some differences, although these differences are far less than are those between good schools in general and poor schools in general.

Out of the conflicts and inadequacies of nineteenth century educational philosophy, confusion over the aims of physical education arose and has persisted. In clarifying their aims, physical education leaders have turned, and

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still turn, to many of the factors of American life and thought that have made us unique as a nation.

Of America, Stephen Vincent Benét has written:

There is a country of hope, there is a country of freedom. There is a country where all sorts of people drawn from every nation in the world, get along together under the same big sky. They go to any church they choose . . . and no man may be persecuted there for his religion. The men and women of this country elect the people they wish to govern them, remove those people by vote — not by revolution — if they feel their representatives have done badly, speak their minds about their government and about the running of their country at all times, stay themselves and yet stay loyal to one cause, one country and one flag.

The flag is the Stars and Stripes. The country is the United States of America. The cause is the cause of democracy.¹

This sensitiveness to the aspiration of free men to make their own choices and live their own lives is found in the best education today, including physical education. The need is great to stress such fundamental values in human life. The failure to have a philosophy of physical education that takes these matters into account can be a serious matter in the future, as it has been in the past.

But next steps grow out of past experiences, and out of present opportunities for fulfilling aspirations and purposes. And so we may ask these questions: What has physical education been in the past, and how has it changed, during this twentieth century? Why has it changed, and have the changes and tendencies been good? What has it aspired to do? What is its status today, and what are the problems that confront it in these critical times?

Two world wars, a decade of "plenty" and one of sharp depression, a tremendous rethinking and revitalizing of the educational process that finds education very different in the middle of the twentieth century than it was in 1900 — these matters among others will help in understanding the special problems of physical education.

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Physical Education in 1900

Many of the difficulties that physical education has encountered in recent years are the inevitable result of the programs and accepted goals of the systems of physical education prevailing in 1900.

Formal gymnastics comprised the major part of the program at all school levels, wherever physical education existed at all. Rhythmic work or games occasionally followed the calisthenics, but this practice was by no means universal. Even in the colleges the same general pattern was widely found. Military drill was frequently substituted for physical education for college men, and later for high school boys. College athletics were largely under student or alumni control and were regarded as outside the scope of acceptable, serious, educational activities.

The reasons for this situation are not difficult to find. The contributing factors are fairly obvious. They include the attitudes and convictions revealed at the Boston Conference in the Interest of Physical Training, held in 1889, and those of college departments of physical education of that period, certain provisions of the Morrill Act of 1862, and the assumptions of the educational theories of that day with their sharp division between mind and body, their emphasis on mental discipline, and their reliance on "faculty" psychology.

The Boston Conference was held long before sports and active recreation had gained the important place in American life that they hold today. The old Puritan prohibitions against idleness and play still had a firm hold on the people, which manifested itself in many subtle ways. People who were disposed to play, or who had the time or the equipment for it, were in the minority. Even the clothing of that day would have made active participation in sports difficult!

The Conference was called to select a system of physical training to improve the health of children in the Boston schools. The Conference endorsed the idea that school children needed exercise during the school day, that exercise should be scientifically devised, that it must be per-

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formed with little or no equipment, in classrooms with their rows of desks and chairs, and that the Swedish system of gymnastics met these requirements more adequately than did any rival system. And so Swedish gymnastics became the physical education program of the Boston schools. Because of the great social and professional prestige of the Conference group, its high valuation of Swedish gymnastics was accepted in many other school systems. Meanwhile, in other parts of the country German gymnastics and other types of free standing exercises were used in the schools to "improve the health" of the children.

Training schools to prepare teachers of the Swedish system, or the German system, or some eclectic system of gymnastics, arose in different parts of the country. These schools graduated teachers after one or two years of work, imbued with loyalty for a particular system, with a belief in its surpassing value, and with limited skills and techniques for teaching command-response exercises of one kind or another.

And so at the turn of the century when Thomas Denison Wood, an early leader in the field of health education, urged that natural play activity was a more adequate source of biological growth for the child than was any system of formal, invented movements, his theory had very little immediate effect on school practice. Most teachers were sure that their training schools had taught them Truth about physical education. They knew how to give the commands for the formal exercises they had been taught, and they believed these exercises rested on sound scientific bases. Furthermore, they were supporting the school policy of teaching for obedience and discipline. They had in gymnastics a tool admirably suited to just this end. None of your foolish, time-wasting play activities as part of the educative process! None of these new-fangled ideas about child nature and needs! School is a serious business. Gymnastics is educational and disciplinary, like other respectable school subjects. This, then, is the proper way to build up health as a basis for better mental work.

So thought these people, trained in a technique and a

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method, but not yet, in these early days, prepared to deal with many aspects of life and experience that must be taken into account in determining the functions of physical education. And so thought others—administrators, for example, at every school and college level—if they thought of the subject at all. Actually, physical education was offered in comparatively few elementary or secondary schools at this time. Only the enterprising or the far-seeing city system or individual school made provision for it. Education dealt with the mind, it was thought, certainly not with the body. These were two entirely different entities—so they thought in 1900.

In the colleges there was considerably more physical education than in the public schools. A rapid expansion of departments of physical education had taken place since the establishment of the first such department at Amherst College in 1860 and the passage of the Morrill Act by the Congress in 1862.

The college departments almost universally stressed exercise for health. The relationship of exercise to health was never very well thought out in these early days, although the fact of a relationship between exercise and health had been observed throughout the period of recorded history. Some of the claims made were erroneous, for example, that exercise would prevent disease. The obvious fact that active and inactive persons were both susceptible to diphtheria, smallpox, or even the common cold, was overlooked in these cases. Other statements were more sound in the light of the scientific knowledge available in that day. The value of exercise in developing body symmetry, or in increasing strength or endurance, could be demonstrated.

The purposes of college physical education departments then, like those of the public schools, were focused on body development of one sort or another. They arose out of the concern of these institutions for the serious health problems of students. The exercise most frequently used for this purpose was gymnastics, pulley weight exercises, or apparatus work. In spite of the limited objectives and the narrow program, the results were gratifying. Many a college president noted that not only was the "health" of students great-

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ly improved with the regular exercise, but that they showed a "greater cheerfulness" as well. A most interesting observation, in the light of what scientists have since demonstrated about the interrelationship of "mind" and "body" and "spirit," as these different aspects of human beings have been designated.

College physical education was further affected by certain provisions of the Morrill Act of 1862. This act provided for the establishment of State Colleges of Agriculture and Engineering in the several states. It required that military training be offered to male students in these colleges. It is easy to understand how such an arrangement should be insisted upon in an educational bill passed in the second year of the Civil War. It is also easy to see how the provisions for military training should serve to set the pattern of the physical education (more properly, physical *training*) of the day. For military training included not only the manual of arms and close order drill, but also "setting-up exercises." These latter were very similar to the gymnastics of the college departments. Why, it was argued, was it not a fine thing to offer exercise under the military department, where instruction and uniforms were provided free by the U.S. Government, and save the college the cost and the trouble of administering a program itself. The substitution of military training for physical education had been rather widely achieved by 1900, and this practice was destined to spread to other than the land-grant colleges following the first World War. It was far too frequently overlooked in these cases that the purpose of physical education had changed markedly since the 1860's and, indeed, since the turn of the century.

In 1900, then, physical education, like education, had turned selfconsciously to Europe for materials, for methods, and for objectives. The materials and methods it chose had grown up out of the military urgencies of the Napoleonic wars and out of other nineteenth century nationalistic wars among the European states. The objectives of the European system of exercise were somewhat obscured in the transplanting to American soil, but they were by no means entirely obscured. To exercise for health; to

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strengthen the body in order that the mind may function better; to teach discipline to the young; and to use formal exercise as a tool for this end: these were the accepted aims. They were supported by the educational philosophy of the day and the faculty psychology of the day. Their acceptance made it possible for schools and colleges to concentrate on teaching meaningless movements to children and youth of all ages, to call it physical education, and to pride themselves that they were not wasting the student's time in play.

Meanwhile, in the colleges and universities, the malpractices in intercollegiate sports had become so serious under student and alumni control that many a college president abolished football and other intercollegiate sports to save the fair name of the college. The time was ripe for the colleges to abandon their "hands-off" policy in sports. With the changing attitude toward play that grew up in the twentieth century, with the acceptance by schools and colleges of other goals of education than mental, physical, and moral discipline, and with the active promotion by professional organizations in physical education and athletics of broader objectives and more varied tools for achieving these objectives, the "hands-off" policy was changed. Gradually the whole attitude of administrative officials and of physical education faculties changed also in regard to institutional responsibility for competitive athletics. The educational implications of games, sports, and dance for every school level gradually became clearer. An occasional leader, sensitive to the needs of human beings and alert to the philosophical and scientific evidence for wider purposes of physical education, pointed to the goals that came to be increasingly sought throughout the twentieth century. Sometimes an elementary school, sometimes a secondary school, and sometimes a college department of physical education translated these goals into methods and programs that served as stepping stones in the course of considerable experimentation and study of these matters. The way was not clear, however. Physical education has been plagued with the persistence of tradition in its pur-

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poses, with the limited views of persons with limited experience who failed to grasp the larger meaning of education.

Certain Factors Basic to Changes, 1900-1946

"When is a person physically educated?" asks Williams, one of America's outstanding leaders and prophets in the field of physical education. His answer is this:

To be physically educated includes more than a proficiency in a variety of skills . . . To be able to play a game well is important, but to have such an attitude toward life that sport has a place is equally so. To have some sportsman-like attitudes about play, to know significant items in conditioning oneself for activity, and to recognize good play in others—these are imperative in a physically educated person. And rhythm belongs, and the out-of-doors; fishing and hunting—the vital touch with nature in her creative powers captures for modern man old responses that light new fires and give new strengths.

Moreover, the place of skill and satisfaction is never to be neglected. These are basic. The surest sign that one may possess an abiding interest in an activity is the possession of skill in it above the dub or novice class. There may well be criticism of efforts to develop champions and record breakers for these may yield limited social returns for the human energy and wealth expended, but there can never be a question of the social value of persons who have acquired levels of skill which help to make them interested in play, dance, and the world of the out-of-doors.²

This concept of a physically educated person bears little resemblance to that of 1900. Over the years of the twentieth century, it appears, a great change has taken place in the way physical education leaders view the purpose of their work. This conception has grown out of the richness of new knowledge and understanding, out of the stresses and strains of social and national experience, and out of the vision of those educators who have constantly sought in knowledge and experience better insights about the function of this work in the educative process.

What, more specifically, were some of the factors in American life and education that made possible such a

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tremendous change in point of view and the wide acceptance of it? It is not easy to make a selection, but the following factors can scarcely be omitted:

1. Education itself was changing. It was adapting its purposes to its larger and more heterogeneous school population. It was concerning itself with "cardinal principles" which included health, worthy use of leisure time, and good citizenship, and it turned to physical education and to health education for help along these lines. It was profoundly influenced by the facts concerning child nature and needs that had been brought out in various studies, and that lent considerable weight to the contention that bending and stretching exercises and deep breathing exercise were not an adequate medium for even the biological development of a growing human being. This general point of view was later supported by continued studies in physiology, anatomy, psychology, and allied fields.

2. Experimentation in scientific fields constantly opened new vistas of knowledge and understanding. The work of Haldane, Lashley, Cannon and others in anatomy, physiology, and medicine removed all basis for doubt about the unity of mind and body, and clarified certain aspects of the organism-environment interrelationship.³ Scientific evidence and philosophic insights in parallel fields of intellectual endeavor and experimentation were continuing to uproot the old idea in education that only the mind of the child went to school. The close interrelationship of those facets of human personality called mind, body, and spirit, was better understood.

Psychology and education contributed valuable new insights into the mainsprings of behavior and into the nature of the learning process.⁴ Social-emotional development, discipline, sportsmanship, leadership, all take on new meaning as goals of physical education in the light of these understandings. The role of attitudes and appreciations is better grasped as basic to all other matters.

3. The draft rejection figures of the first World War in 1917 disturbed the country deeply. The "health" level of the youth of the nation was considered alarmingly low, and physical educators lost no time in accepting the re-

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sponsibility for improving health through an activity program. A flood of legislation requiring physical education or health education (the terms were often used synonymously) swept the states. Whereas prior to 1917 only 4 states had laws requiring physical education in their public schools, there were 8 such states in 1917, 18 by 1919, 27 by 1921, 32 by 1923 and (38) by 1935. A few other states have joined the ranks since then.

The corollary to this is easy to foresee. The sudden demand for teachers of physical education brought about a tremendous expansion in teacher education. Many institutions were ill-equipped for this burden. Just at the time when questions of the most serious import about fundamental purposes and values were at stake, the pressure for teachers was so great that many were graduated from institutions where it is very questionable that they were equipped with a knowledge and understanding of principles, scientifically based, on which to develop programs. No wonder statements of purpose are often so inadequate even now, and sometimes at the college level.⁵

4. Recreation became a conspicuous part of the American way of life: games, sports, dancing, hunting, fishing, hiking — varied activities to suit varied types. Even physical education personnel were surprised to learn, from the reports of the President's Research Committee on Social Trends, the amount of private and public expenditure for recreation in the 1920-1930 decade, and the extent of active participation in athletic and other activities by adults as well as youth.⁶ It was not illogical then, to include instruction in these matters as part of the school curriculum. This became an added reason for broadening the purposes of physical education: to prepare children and youth for the world of reality in which they were living; to equip them with skills and resources for the right use of leisure.

5. During the disorganizing economic depression of the 1930's, certain important studies indicated that far too many schools had failed to translate their "non-academic" objectives into effective programs. The New York Regents

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Inquiry into the Character and Cost of Education⁷ and the American Youth Commission⁸ surveys were among the most important studies that were focused on children and youth of school age, and on what the schools should be expected to do for them. Their findings indicated that far too many young people were ill-prepared to live effectively as citizens under the stresses and strains of this period. These were the years when the "Boy and Girl Tramps of America" were riding the rods. They were looking for jobs in many cases — yes. But they were also looking for almost anything to do to take up their time — just like their brothers and sisters who stayed at home. And most of them, when asked, expressed the wish to know more about health and about recreation, as well as about jobs. Physical education, then, discovered in the findings of educational and sociological studies plenty of reason to be reassured that one of its chief functions must be preparation for wholesome, beneficial, and satisfying use of leisure time.

These are a few of the factors that have loomed large in determining the purposes of physical education during the course of the twentieth century. There are many more, of course, but these may help in some measure in understanding the emphasis found since 1941, when the United States entered the second World War. They have useful lessons, too, for those who are concerned with problems of physical education in the future.

Physical Education Today

When the United States entered the second World War in December 1941, it was already apparent that physical education had a tremendous role to play in national well-being. The Army and Navy made it clear that they expected the schools and colleges to give boys a strenuous pre-induction physical conditioning and, wherever possible, to teach them to swim well. There was no such clear goal as preparation for combat duty for the girls. However, it was generally agreed that they would profit by more vigorous planned exercise, and so their programs, too, were stepped up in intensity. Adults, both men and

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women, were urged, in a nation-wide physical-fitness campaign, to take part regularly in sports or in some exercise suited to their age and inclination. The importance of starting in childhood to build a sound physique and to develop an interest in activities that help maintain fitness was stressed and contributed in no small measure to better elementary school programs than had been known before.

Almost everyone, it was held, had extra responsibilities: a job or war work or added home responsibilities. Many a person who had scarcely walked except to get into his automobile, and who had even been known to circle a block two or three times in the car rather than to park a little distance away and walk, was discovering that he needed quite a little toning up.

Physical educators were inclined to agree that there were programs of widely varying merit throughout the United States. In some places, physical conditioning had been overstressed, to the neglect of other important objectives. In other places, strange as it may seem, it had been neglected. Here, skills were thoroughly and interestingly taught, and children loved the activities they became more adept at playing; there, the boys or girls were given some balls and sent out to play with no instruction. Valuable time wasted, and no enduring interests built. Here, sportsmanlike attitudes, and skills in cordial social relationships were consciously taught. Youth learned to achieve maturity valiantly and to accept responsibility for the group welfare. There, attitudes of beating the game and cutting the corners were, if not taught, at least permitted as long as the team or the school won the game.

Because of the immediate need for men able to stand up under the rigors of war, physical fitness assumed the central place that it deserves among physical education objectives in time of war. To be sure, it seemed at one time as if the interpretation of the draft figures for the war might again lead to very real misconceptions about fitness and exercise. The most frequent causes of rejection, based on the Selective Service physical examinations, are listed by that wartime agency as follows: teeth, eyes, mental and

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nervous, cardiovascular, musculoskeletal, hernia, venereal disease, and ear, nose and throat.⁹ Such facts indicate a tremendous nation-wide need for more widespread medical and dental services for millions of our children and youth. Exercise has never been seriously proposed to prevent dental defects or to ward off poor eyesight or defective hearing.

There has been, however, plenty of evidence both from the military training camps and from the civilian population that a higher level of vitality, endurance, and strength was greatly to be desired among all the people. The Nazis had been sneering at the soft democracies. It looked, for a while, as if they might have been speaking with some justification. They must have been abashed to discover what those "soft" people could do, in fighting and in industrial output to support their troops, when it seemed important!

One of the chief problems of physical education lies exactly here—to interpret the meaning of fitness so that people will see that it is important. Then perhaps they will plan better, both for the medical aspects of their own fitness and for the activity basis of a sound physical condition. This includes periodical health examinations preceding exercise programs, both in school and out. It involves understanding and skill in the fundamental body mechanics involved in standing, walking, lifting, carrying, and all kinds of activities the individual engages in regularly. These are matters of lasting value that will save an individual many a strain or injury throughout his life. Included, too, are vigorous activities largely of the natural, not the formal, types. And, most importantly, not just "free play" in these activities, but instruction in fundamental skills and techniques and rules of games and sports, to assure satisfaction and success.

Physical education is deeply concerned that these fundamental skills shall be well taught, as a contribution to the conditioning program. The beginner at tennis or volley ball may not be engaging in strenuous exercise that will give him greatly increased muscle strength, or physiological endurance that may serve to ward off fatigue. But he

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is, if properly taught, learning how to play properly, so that before long tennis or volley ball will be a fast game for him, and he will also be learning to *like* to play. This will result in his continuing his physical activity throughout the years. It is a long-range view of the way to maintain fitness through activity he has learned to love. If education can make this matter self-directing, it will have built well for the future.

One of the major problems of physical education has become that of discovering ways of identifying those youth who should be less vigorous in physical activity in order to achieve their own optimum fitness level. The wartime emphasis on ruggedness, stamina, endurance, simply throws into the spotlight old questions of the profession about individual variations in strength and skill, about differential growth rate and emotional stability, and the program adaptations that are best for each person in the light of his own condition.

This question has always assumed particular importance with respect to programs of interscholastic athletics. There are grave doubts about these programs along with high praise for them. The ruggedness of the physical activity, the sense of team play and group loyalty, and the sportsmanlike attitudes they make possible are on the positive side. On the negative side, there are serious questions whether such strenuous activities, activities so emotionally toned, are always conducted for the best good of all the boys who take part. Women are generally agreed that such competition is not advisable for girls unless controlled by leaders who are in agreement with the standards and desirable practices recommended by The National Section on Women's Athletics. The matter bears watching, by both men and women. The welfare of *all* the students may indicate in some schools the need to divert some of the coaching skill that goes into after-school sports to the broad instructional program for the entire school.

Physical education is concerned, it has been shown, not only with ruggedness and with skills, but with attitudes, appreciations, interests. It is concerned, too, with the quali-

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ty of social experience and of community life and is prepared to play its full part here, as well. Coeducational games and activities are provided to give help and social experience in a natural setting for activities that boys and girls, men and women, can enjoy together.

Many schools are now used as community centers after school hours. The playing field, gymnasiums, swimming pools are made available to children, youth, and adults in the late afternoon and evening hours. Physical education leaders are often active in promoting school-community programs that contribute in large measure to the quality of community life. Where a corresponding use of the facilities for music, dramatics, art, and the sciences is made possible, a rich recreational and cultural opportunity is brought to the community.

Many high school as well as college youths demonstrated their sincere desire and ability to serve their community well, and their neighborhoods well, in the war years. Some physical education departments have trained groups of senior boys and girls as leaders in neighborhood recreation programs.¹⁰ These young people make a valuable contribution to their communities by continuing to organize recreation when they leave school.

Just at the time when vigorous and broad physical education programs are most urgently recommended for the schools, the shortage of teachers in this area is acute in most of the states.¹¹ Great harm can come from this unless there is a careful selection of best-trained persons available and careful in-service training of those with emergency certificates. For teachers, if they are effective, translate their scientific knowledge and philosophy of physical education into programs and into administrative techniques that will make for physically-educated citizens. Such teachers develop programs that give more than lip service to individual differences. They interpret to students the purposes of physical education, help them to understand the process of physical conditioning and to manage their own lives so as to maintain it. Beyond that they provide for individual tastes and preferences in exercise and recreation. They see that the student has a broad background of experience in

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all kinds of games and dancing from which to select activities of his choice to learn more thoroughly. They so arrange matters that each student does make a selection, that is, he plans his own physical activities with the help and guidance of the physical education teacher. The student shares the responsibility for planning his own physical education, then, and in the process is helped to understand the place of these activities in a satisfying life.

Health Education

Probably nothing in American education is more amazing than the slowness with which adequate programs of health education have been developed. Scientific knowledge is available to markedly improve the health level of the people. The public works itself into a stir of great indignation and alarm over this matter when wars break out. Laws are passed requiring health and physical education in the schools. (The two subjects are usually linked together in legislation.) But when wars end, what happens?

The answer is that the people quickly forget the importance of health in peacetime living. The cost of achieving sound health seems too high. Taxpayers think the cost of school programs is high, too, and school administrators, yielding to pressure groups, often make very inadequate provision for this work in their budgets. Some of them think health is something to be taught in a certain course, and so they fail to provide the kind of arrangement that will really get health into every aspect of school life. Again, teachers think that health education is hygiene and that it is boring. And so they will have none of it, or perhaps they will have a little of it and then feel themselves competent to teach it — boringly.

But the picture is by no means all black: there are today some outstanding programs of health education—significant, vital, intelligent, interesting—which will undoubtedly continue in the peacetime years. It is greatly to be hoped that the number of such excellent programs will rapidly multiply, and that the long overdue outcomes in health will soon be apparent and measurable.

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Let us now ask, what have been the chief trends in the twentieth century in the field of health education? As in physical education, the period up to the first World War was a process of slow evolution from the purpose and programs of the late nineteenth century. The Women's Christian Temperance Union had succeeded in having legislation passed requiring that school children be instructed in the evils of alcohol and other narcotics. By the 1880's most states had such laws. The W.C.T.U. prepared instructional materials that were widely used for this purpose.

The medical inspection of school children was first regularly established in Boston in 1894.¹² Other cities followed suit in the ensuing years. Since children were compelled to attend school, the schools were responsible for their protection. Epidemics broke out from time to time among school children, partly, perhaps, because of poor school sanitation and certainly because of the admission to school of children suffering from or who had been exposed to contagious diseases. Doctors found so much the matter that they recommended that children should be taught some physiology. Unfortunately, the instruction was largely centered on memorizing the names of bones and muscles, so it is doubtful that the children were very much enlightened about the matters that would have helped them to live more healthfully. Time—a long time, to be sure—changed all this. But bones, muscles, and alcohol comprised most of the hygiene instruction at the turn of the century.

Before the first World War some progress in expanding the subjects of hygiene instruction to include more functional topics had been made. This was paralleled by a variety of measures to improve the hygiene of the school plant. Various matters gained their share of attention and concern: sanitation, lighting, ventilation, heating, furniture. Much more recently there has been a commendable concern for less tangible aspects of school life that deeply affect health: administrative requirements, program-scheduling, and the emotional climate of the classroom, for example.

Up to 1917, nothing had been done very extensively to get health habits established. The need for behaving

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healthfully as well as for knowing about health was recognized, but getting such behavior built into habits was the next problem in health education. The National Tuberculosis Association served very effectively in this phase of the school health movement. Their Modern Health Crusade was designed to interest children in forming good health habits. Established in 1917, the Crusade was approved shortly thereafter by the National Education Association, the National Congress of Parents and Teachers and other official school groups, for the elementary school level chiefly. Each "crusader" kept a daily "chore card" indicating whether he had washed his hands before each meal, brushed his teeth morning and evening, played outdoors or with windows open for more than thirty minutes daily, and similar things. School instruction in hygiene gave the opportunity for interpreting these matters to the children.

It was also in 1917 that the draft rejection figures for the first World War shocked the country. The wave of state legislation that followed this announcement has been noted. Now that similar figures have been revealed since 1941, it seems likely that some intelligent solution to our national health problems will emerge. It would indicate both stupidity and insincerity for the public and the educators to be "alarmed" at the same situation twice in twenty-five years, and to do very little about it. Not when we have the knowledge and the resources to improve—and we have both. As Colonel Rowntree of the Selective Service System says, "No one group can change the conditions by itself. A great cooperative social effort is necessary. Medicine and education must furnish the leadership."¹³

The modern school health program at its best is broad in scope. It aims to help pupils grow up into healthy, normal, well-adjusted individuals, who understand the basis of good health, and who plan their lives and their behavior according to the best available evidence in this field. Knowledge, habits, attitudes, not only about brushing teeth and washing hands, but about community social services and about acceptable emotional adjustments and inter-personal relationships.

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The scope of the modern school health program is well portrayed in *Health in Schools*, the Twentieth Yearbook of the American Association of School Administrators, which lists the following six basic areas of responsibility in the health program of the modern school:

1. A healthful environment must be provided.
2. A health guidance program is essential.
3. Emergency health conditions demand immediate care.
4. Accurate health information should be taught.
5. Sound health habits and attitudes need to be established.
6. The exceptional child requires a modified school program.¹⁴

The same Yearbook suggests that the teacher in the secondary school "may consider her efforts successful if she has succeeded in building in youth respect and appreciation for the human organism and the life process, an understanding of the problems that confront him in building and maintaining his health, and a disposition to meet life's situations in a sane and wholesome manner."¹⁵

The material of health instruction has gone well beyond that of the temperance and tuberculosis days. It still includes such instruction, but in a larger setting. In the secondary schools, mental hygiene, social relationships, preparation for marriage and parenthood, as well as safety education and community and industrial health have a place along with the more traditional aspects of personal hygiene in these programs.

One example of a modern health education course geared to the interests and needs of secondary school girls is that of the Community Health Service Project in Michigan. It includes units on (1) the functions and activities of community health agencies; (2) personal health, including the appraisal of one's own health status, the health examination, common physical conditions and defects and what to do about them; (3) family health including maternal health, infant and child care; (4) home care of the sick, and first aid; and (5) occupational information relating to selected health professions.¹⁶ The

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cooperation of community agencies and the participation of students in various projects outside the school is a part of the course of study. More responsible citizenship can certainly be expected as one of the outcomes of this kind of health education.

The problems in health education are many. A chief one, of course, is to translate into practice, on a wider scale, the best that is now known about this subject. A recent survey of the U.S. Office of Education showed that only 20 per cent of the boys and girls in the last two years of high school throughout the United States were enrolled in health education.¹⁷ This is a serious matter.

A most troublesome and controversial unsolved problem in many places is that of getting children's defects cared for. The school doctor and the nurse may record what needs to be done for a child. Far too often this record follows him all the way through school, with no action. And then he is rejected in the draft, for a condition that need never have assumed such proportions. More important, in the years of peace, he lives below his best potentiality, handicapped by a health problem that home, school, and community did not cooperate to free him from.

Problems and Issues

Problems and issues over physical and health education have been indicated in the preceding pages. There need be very little recapitulation of these. Concurrent problems that loom large in this area include the following:

1. Will the public care enough about the quality of life that physical and health education can help to bring about, to pay for it now that the war is over? It takes men and women of broad education and thorough professional competence to do this job well. Salaries, working conditions and cooperation in school and community that are commensurate with the importance of their task must be offered to encourage persons of high quality to work in this demanding area.

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2. The fact that physical education and health education are usually required at each school level poses a special problem that is often overlooked. An excellent way to kill interest in a subject and to encourage ineptness in a teacher is to require the subject of all students. How to interpret programs of health and physical education to students so that they and their teachers will work wholeheartedly together for ends that make sense to them both, is a problem not yet solved in all schools.

3. Colleges and high schools throughout the country number among their students returned service men and women, many of whom are bearing physical or health handicaps. This will serve as a very dramatic reminder that no one program is equally desirable for all students. The physical education and health education personnel of an institution will be taxed to the limit to orient their programs and purposes around such diverse groups of the immediate future. The thoughtful teacher will constantly strive through this experience to understand better the physical and emotional problems of human beings, whether in war or peace.

4. The mobility of population during the war years has opened dramatic opportunities for physical and health education. The large migrations of Negroes and of whites from poorer sections of the United States to the more privileged centers has made clear how completely inadequate is the most elementary knowledge of personal and public health that these people acquired in their schools. This has been one major source of friction in many communities. Furthermore, the children and youth from less favored school systems do not know how to play, and so they fight or they dawdle around doing nothing. Schools, Y.M.C.A.'s and other groups that have tried to help in the assimilation of these people have been appalled at their lack of information and of simple play skills. There are probably few school subjects that lend themselves better to the practice of democratic behavior, and to the elimination of social or racial tensions, than does physical education.

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5. It would be unrealistic to overlook the possibility of an economic depression sometime after the war. Whatever the schools can do to help youth live richly and with deep satisfaction may, we can hope and pray, help our people to live generously and courageously if this blow falls. The subject matter of health education and of physical education, and the attitudes toward life that it should instill, may contribute very largely to this kind of living.

The important thing for days of serenity and security as well as for dislocation of the lives of our people, is to start now.

Conclusion

Physical education and health education have been shaped in the twentieth century by many of the same forces. The changing American social scene, with its manifold interdependent factors has of necessity profoundly affected the purposes of these subjects. Scientific knowledge, in biology, psychology, sociology, education, has enabled the thoughtful educator to reconstruct his purposes, methods, programs, realistically.

The significance of these changes lies in the fact that none of the objectives has been proposed as an end in itself. By focusing on health it would be possible to develop hypochondriacs. By focusing on physical fitness, the product might be a people seeking to use their highly developed strength and endurance and vitality in aggression. By disregarding all but recreational ends, some teachers have failed to help their students achieve fitness—and indeed to teach functional skills for recreational ends. While focusing on “developing character,” there are coaches who have failed to adequately protect the health of their charges, or to help them develop worthy leisure time interests, or even in some cases to develop desirable behavior patterns.

None of the purposes of health and of physical education is significant, then, except in the light of the kind of life we want in America and the kind of people it takes to make that life possible. It would always be pos-

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sible for a tyrant to raise the health level of the people, as Mussolini did in Italy, or the physical fitness level, as Hitler did in Germany, or the recreational opportunities as most tyrants have done (at least for the "faithful")—and then for the tyrant to demand the loyalty of the people for these favors. But that is not the American way. All who treasure democracy must do their part to make democracy work in the process of achieving the fullness of life that comes with radiant good health, a sound physique and being a physically educated person.

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CHAPTER XXX

VOCATIONAL EDUCATION

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What is Vocational Education?

Vocational education is part of the total education process. Like health education, character education, and civic education it implies a particular end or goal and a content and methodology suitable to the goal. It is education for work, with all that this implies. Every fact learned, every skill acquired, and every habit or attitude which contributes to the end goal is a part of the vocational education of the one who uses it. It makes no difference whether the fact, attitude, or skill is acquired in school, at play, or on the job, it is equally a part of one's preparation for work.

The vocational education of primitive man was largely a process of growing up among adults, and learning, first through play and imitation and later through shared experiences, the things which were necessary for the existence of the individual and the group. The process of educating youth for work was little different through the pastoral period of the human race. But as community life developed and the advantages of exchange of commodities became apparent, the work of individuals began to be specialized and the training for work became selective and more intensive. Chance "pick-up" of information and

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acquisition of skills through play and participation in community and home activities were no longer sufficient.

It was this increasing specialization which developed apprenticeship as a system of vocational education. The boy was bound to the master to work for and serve him, and in return the master agreed to instruct and train the boy in the arts and mysteries of the craft. The master also agreed to provide other educational services including moral and religious training.

Apprenticeship, as a system of vocational education, served well during the handicraft period, but it developed many shortcomings when production moved from the craftsman's home shop to the factory, and industry became corporate and lost the fine personal relationship between the employer and the employee. Mass production also led to specialization and the breaking down of occupations into jobs of limited scope. The advance of scientific knowledge and the multiplication of inventions further complicated the machinery of production and the specialization of jobs. Some jobs required more technical knowledge and precise skills; many more became routine attendance at machines.

These transformations within industry were accompanied by corresponding complications in the process of training the worker. The large employer could meet his needs by establishing a vestibule school or training department in the plant. A few of the largest employers, such as the Ford Motor Company and the General Electric Company, established technical schools as a supplement to the daily work. But, over the country, employer plans were scattered and inadequate. As long as trained help could be imported from European countries which recognized that the cultivation of human resources had to make up for their lack of other natural resources, all was well. When immigration was restricted, we were faced with the issue of public vocational education in this country.

The need for clerical workers who could use the newly invented typewriter and take dictation in shorthand pre-

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precipitated the issue of vocational education. These were skills which the employer did not possess and which could not be picked up by imitation or through any system of apprenticeship. It required careful, intensive, and prolonged training to create employment values. Employers were not prepared to provide this training and the schools were looked to as the most practical recourse.

Enterprising school leaders experimented in other occupational fields and found that comparable values could be obtained. However, the established school system of the country refused to accept training for work as a legitimate function of public education, so the movement made little progress until it became subsidized through federal aid under the Smith-Hughes Act of 1917.

Standards of Vocational Education

The federal act raised the issue of intention and emphasis in vocational education. It was pointed out above that any training which contributes to employability or preparation for work is vocational education. Learning to walk is necessary for most jobs; ability to write and to cipher are likewise indispensable, but they are also a part of general education and are usually learned long before there is any thought of a job. However, in learning to use arithmetic in bookkeeping, or trigonometry in surveying or navigation, the end goal of a job to be done or a vocation to be learned becomes a primary consideration.

Vocational guidance. Selection of the job or end goal of vocational education is the first phase of intentional preparation for work. Intelligent selection implies a knowledge of the nature and specification of the job to be done, the frequency and location of opportunities to work, and the social value of the work. It also implies that one knows that he possesses the necessary personal qualifications to fit the job. Failure of individual qualifications to match the specifications of the job is the immediate cause of failure of many who strive for goals beyond their reach. It is also the cause of wasted talents in routine tasks when

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greater achievements are possible. For instance, students who have difficulty in maintaining better than average grades in lower division college work have only poor prospects of becoming doctors; and students who have capacity to become doctors are wasting their talents when doing manual labor. Many potential mechanics lead unhappy and unprofitable lives in an endeavor to serve in the professions and much excellent talent fails of realization because the individual becomes tied to a common job. It is the problem of discovery of job level and general job aptitude through the process of guidance and counseling which constitutes the first requirement of vocational education.

Grade placement and time schedule. The second requirement of a sound vocational training program is that there should be an adequate plan of training to meet the goal. Obviously, students should be old enough to be employable upon the completion of training. Cold storage training, or training too far in advance of employment, is not only wasteful of training values, but costly. When the desired length of training is once determined, the grade placement should be moved up or down according to the economic conditions of the time. If the demand for labor is acute, age standards tend to fall and employers become less critical of the qualifications. On the other hand, when the jobs are scarce and workers are plentiful, employers become choosy and require more maturity and better preparation for work. This fact places the public schools in the strategic position where they can raise or lower the grade placement and shorten or lengthen the term of training and thus contribute to the stabilization of the labor market.

Training time for any occupation should be sufficient to accomplish the purpose intended. Some occupations require a comparatively short pre-employment training period, while others require much time. Examples of the first might be the job of a file clerk or of a plate welder in ship-building. Occupations requiring a much longer period of training before the worker is of material value to the employer are radio service, watch repair, and

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stenography. The training for some occupations can well be spread over a long period of time so as to provide a range of experiences which have a sequential order or which require the development of discretionary judgment; whereas training for other jobs may be concentrated into a maximum number of hours per day and a minimum number of days. It is this need for singleness of purpose and the desire to avoid desultory training which led to the specification of time requirements in the Smith-Hughes Law of 1917, and the continuation of these standards in the George-Dean Law of 1937. Without intending any discount to the values of an hour per day for general education goals, and without casting any reflections on the desirability of the content of such courses, vocational education has set up its own standards. In either event, there should be a clear intent to prepare for the job and sufficient time provided to give the required training. In agriculture the preparatory training is usually given for a minimum of from ninety minutes to two hours per day, through the last three years of high school. It is also required that there shall be a supervised farming project which continues through at least six months of the year.

In homemaking the grade placement and time standards are similar. In the trades and industries there is a wide variation in grade placement of training. Some states use from one to three years in high school, while in others, preparatory training is given chiefly on the post-high school level. Also, in the trades and industries, a minimum of four hours per day of instruction in the skills and technical and related information is required. This practice makes high school graduation more difficult and tends to cause a delay of vocational education until the later years of school. When training is moved up to the post-high school period, it is usually desirable to devote the entire day to specific training for employment.

When preparatory training has been accomplished and employment has been secured, many students find it profitable to return to the school for part-time or evening instruction as a supplement to their daily work. In this way

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they can secure the assistance of a competent teacher to help them meet the new problems they encounter. It must be understood that preparatory training, at best, is only a good start, and that the real work of most trades or occupations can be learned only on the job and under production conditions. Part-time and evening training can prepare the learner to meet the new problems as he encounters them from day to day, or to prepare for advancement in jobs requiring greater knowledge, skill, and responsibility.

Job atmosphere. To be effective, vocational education must prepare the learner to do the jobs which he will encounter in industry. This is the reason that home projects of commercial size are required in agriculture. It is also the reason for reproducing as nearly as possible the equipment and practical working conditions in the trade or industrial shop. The objective is to train students to use the same tools and machines that are found in industry and to use them on the same types of work so that they can go into industry and carry on successfully. When it is not possible to reproduce the machines of industry, due to their size and complexity, the fundamental operation must be taught on smaller and simpler machines. This is a compromise which sometimes is unavoidable and which indicates a point at which training in school becomes impractical and the task must be taken over by industry. An example of this would be the heavy car wheel lathe which is necessary in a railroad machine shop but which would be impracticable for the school. The student can learn to adjust feeds and speeds in the operation of a smaller lathe, but must learn the special adjustments on the commercial machine after he leaves school.

The instructor. It goes without saying that one cannot teach what one does not know. An occupationally competent instructor is indispensable to vocational education. In other high school subjects this need is met by assigning the instructor to teach in the field of his college major. In vocational education this training major for the industries is usually learned on the job and is the equivalent of from two to six years of experience beyond the ap-

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prenticeship or learning period. Obviously such extensive preparation goes beyond the possibilities of the teacher training institutions and it becomes necessary to turn to the industries as the only source of teacher material. In doing so it is not assumed that knowledge of the job constitutes preparation to teach any more than we can assume that preparation to teach qualifies one to teach an occupation he has not learned.

Whether to send the trained instructor into industry to learn the job or whether to attempt to train the occupationally competent tradesman to teach has been the subject of much discussion. The evidence of time seems to indicate that if the school trained man goes into industry to become prepared to teach, he becomes so valuable to industry that he is lost to the school. It has also been established that for many occupations it is more practical for the qualified tradesman to meet the minimum professional requirements to teach than for the college trained man to meet the minimum trade requirements necessary to command respect as a teacher of a trade. The ideal is to find the right person with the combination of college and technical training and who also has such an amount of practical experience as will qualify him for leadership in his occupation. Such persons are rare.

In agriculture, homemaking, business and distributive education the same principles apply, but the difficulties inherent in these situations are much less because so much of their practical content can be learned in the college.

The course of study. Since vocational education is education for work, we must also look to the job to find what must be taught. If the students are to work in different shops, work in different homes, raise different crops, or farm on different types of land, all of these variables must be known and accounted for in the course of study. When a particular job is anticipated, the problem is not so difficult; but when even the first job is unknown and when workers change jobs frequently, the worker must be prepared for what he will find. This requires broad training on basic principles and practices, together with suffi-

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cient special applications to prepare the worker to get a job and make required adjustments. For instance, one might be given elementary training on several machines in a machine shop and considerable training on the lathe or milling machine. This problem of making adjustments to job changes has led some educators to advocate a broad sampling experience as the basis for the vocational curriculum instead of the intensive preparation for any one job. In the words of the great Teacher, ". . . these ought ye to have done, and not to leave the other undone."

Placement and follow-up. Effective vocational education results in securing a suitable job in the field of training. In years past much criticism has been leveled at vocational schools for training boys who never got jobs in the field of their training. This failure has been both costly and wasteful. The answer lies in an adequate program of placement and follow-up service. The school knows best the qualifications of the student, and the school can best refer him to the job for which he is prepared. Such reference and follow-up has a further value in that it establishes a three-way relationship between the employer, the student, and the school. This applies to both job performance and personal relationships. In cases where difficulties arise, the school is in the best position to act as mediator: the student is under obligation to make good on the job; the employer can advise regarding shortcomings in the training program; and the school can provide part-time or evening classes to supplement the daily work experience of the student until he has made his adjustment and becomes occupationally competent.

Some Practical Limitations to Public Vocational Education

Not all occupations lend themselves well to public vocational education.

Many jobs require such meager skills or knowledge that assignment to work with other men who know the work, or a limited amount of instruction, is all that is required of them to meet the demands of the job. The dish washer picks up his trade by observation and a few questions or

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suggestions. The janitor has more to learn, but he can go right on working alongside other men until he qualifies for his job. The truck driver who has driven other cars needs experience on trucks, but there is so much in common between the two that a few hours or a few days prepare him for the more simple assignments. Furthermore, the learning of heavy duty truck driving requires heavy duty trucks and individual instruction. Schools are not usually equipped with heavy duty trucks, and individual instruction can be given just as economically by the employer as by the vocational school. On the other hand, the typist who cannot type and the welder who cannot weld are of little value on the job until they acquire adequate skills. Also, they can be taught in groups, which the employer is much less well prepared to provide, and which are much less costly than individual instruction.

Vocational education, therefore, if given by the schools, must be practical and economical. It must be practical in that the training is sufficiently like the job to be done so that the student can make a satisfactory transfer from school to job. It must be economical in that the cost of equipment is not prohibitive and a sufficiently large number of persons can be instructed at one time or under one instructor so that it is justifiable to establish the school situation.

The occupations included in the vocational education program must have sufficient skill or technical content to justify consideration. Tasks which can be learned quickly on the job do not warrant establishment by the school. But, when the beginner must learn by imitation and the learning is delayed while wages are being paid; when the learner requires much time from other workers so that their production is slowed down; when the work is done so slowly that it is costly, or when the work is done so poorly that it is wasteful, the learner is unprofitable and the employer will not assume the responsibility of vocational education on the job. Even when some employers accept this loss as an unavoidable expense or an obligation to the industry, they face the competition of those who refuse to assume this obligation as well as the proba-

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ble loss of the employee to other employers. Under such circumstances, it has been found desirable to establish vocational education in either public or private schools.

The number of job openings for which new workers are to be trained is also of primary importance. When students spend their time, and frequently their money, for training, they want to be assured of employment when they complete the course. In determining the need for training in any given area, it is necessary to make a census of workers in that area, determine the rate of labor turnover for the occupation and such other factors as age, distribution of workers, and the increase or decrease of the number engaged in the field. For occupations which require one year of preparatory training, the annual labor turnover and job increase should at least absorb the product of one training class.

Vocational Education—A Neglected Area

The public schools were first established to teach the three R's. When the economic pressure of pioneer life subsided, increased numbers took advantage of opportunities for schooling; longer periods of schooling were demanded and the three R's were expanded into a comprehensive curriculum. But still nobody thought of work as a legitimate subject of study. On the upper end of the school system colleges developed the professions, and many thousands took advantage of the opportunity to prepare for earning a livelihood therein. Other thousands took training in arts and science courses with no thought of an employment outlet.

On the lower end of the system, elementary education was expanded to the high school level and standards of public education were gradually raised until today some states make high school graduation the common goal of all youth. Other states are still content with seventh and eighth grade requirements before students are released from school. The amount of this schooling which is designed for vocational education also shows wide variation. In certain industrial areas high schools or special vocational schools

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provide from one to three years of training in a wide variety of subjects. In other cities, little or no training is given for work. In the smaller cities the number of openings in any one occupation is so limited that vocational education is considered impractical. This is also true in many rural schools. The net result is that most school administrators and teachers find themselves well absorbed in providing general elementary and secondary education and little concerned about vocational education either for secondary school students or on the adult level.

Much of the commercial education fails to differentiate between training for general personal use and training for a job, and so lacks that standard of proficiency which is essential to employment. Similarly, instruction in home-making may be interesting and include much of practical value, but to the extent that it is not designed and conducted so as to assure its carrying over into the problem of home living, it is not called vocational education. Likewise, they are admittedly part of the general education curriculum and lack the pointedness and intensity necessary for practical preparation for employment.

The old apprenticeship system is still in use. Many of the large employers in the applicable trades such as railroads and machine tool manufactures still maintain this system and assume a fair measure of responsibility for training their workers. But it is also true that many other large employers do not accept this responsibility because of the uncertainty of providing continuous work. This is especially true in the building trades.

The unions are doing something to meet this situation by providing for the indenture of apprentices to the union. In this way the union accepts the responsibility for the training of the boy and assigns him first to one employer and then another according to the availability of employment and the training needs of the apprentice.

There are economic aspects to vocational education which should be understood and taken into account in the establishment of a policy and program of vocational education. In the first place, it is a problem of conservation and utilization of resources. The trained worker can pro-

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duce more of any service requiring training than the untrained worker. He can get more crops from the land, he can get more miles per gallon, sell more goods, or make more shoes. As long as society needs more goods, its workers should be trained to produce.

The trained worker makes a better product with less waste than his untrained neighbor. More words are typed per minute and fewer pages require recopying; the carpenter hangs more doors and they fit better; the repaired automobile does not have to be returned next day; and the welded tank is leak proof and strong.

Everyone recognizes the need for training if we are to utilize our available manpower and obtain a satisfactory service. The question is, who should be responsible for training. At one time it belonged to the parent. Long ago it passed to the employer and today many people say that the employer is the only possibility. But, employers have refused to accept this burden because of the long period during which the work done does not equal in value the wage paid and the time of the other workers devoted to instruction. Furthermore, most employers are not in a position to give training economically. True, the learner usually gives some labor value but his training is on an individual tutor basis, which makes costs prohibitive.

When the parent is not in a position to give vocational training to his children, and when the employer either cannot or will not provide it, either the job will not be done or the public must take some action in the interest of the general good. Not only is the life and well-being of our children at stake, but the whole economic structure is affected. Production is retarded, the quality of service is lowered, and costs of training, if forced upon the employer, will be added to the price of goods and services for which the public must pay.

We have long since recognized that the general goals of education cannot be achieved unless the individual is able to find a place in the economic world which will give him pride and satisfaction in service and give a financial return which will remove the fears of want. After all, every civilization which has ever existed has been built upon an

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adequate economic foundation for those who shared in that culture.

Since the public schools are already established for the general purposes of education, and since these purposes are threatened with failure, at least for those individuals who are unable to make satisfactory economic adjustments, and since the consumer will sooner or later pay the bill, the public schools are the logical agency to assume that part of the problem which cannot be done better or more economically by industry.

How Far Have We Gone in Providing Vocational Education?

Prior to 1917 when the National Vocational Act was passed, vocational education through public school agencies was limited in scope and experimental in nature. The states soon accepted the proffer of federal subsidy and provided nominal matching funds to initiate the new program. Local schools were slower to act, partly because they were unprepared, partly because the new program required major changes in their school schedule, and partly because they were unconverted. In time, the local response increased and additional federal funds were required to meet the increasing demands. The nature of the training program and the rate and extent of its development may be of some interest.

Agricultural Education. In the field of agriculture a four-fold program has been developed. (1) A program of guidance is planned to assist boys to determine whether agriculture is the most suitable occupation for them to enter. (2) A program of all-day preparatory training is provided extending over two or three years during which the boy studies appropriate literature, selects and plans a suitable farm enterprise, and carries it through to completion under the supervision of the instructor. In this program a minimum of from 420 to 450 minutes of class time per week, and six months of supervised farm practice are required. Every phase of farming is given consideration, including the selection of crops, treatment of soil, culti-

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vation and harvesting of crops, storage and marketing of crops, selection, care and maintenance of equipment, and financing the enterprise. During the fiscal year ending June 30, 1943, a total of 304,668 students were enrolled in 9,525 day preparatory classes in the United States, District of Columbia, Hawaii, and Puerto Rico.¹ This is estimated to be approximately one half of the number of young men who enter the occupation of farming each year.

(3) A program of part-time classes is offered to help the boy who has completed his preparatory training to become established in the business of farming, whether it be as tenant, partner, or owner. Part-time classes meet for a minimum of fifteen sessions of ninety minutes each and may be held at any hour or season. A farm enterprise carried through six months or more under the supervision of the instructor is also required, as in the case of preparatory students in high school. In 1939-40 the enrollment in this type of vocational education reached 62,489² young farmers. There was a sharp decrease from this peak enrollment in subsequent years when the war took this age group from the farms and industries. Part-time education for young farmers is only in its beginning stages and may be expected to exceed the preparatory classes in enrollment in the post war period as the war veterans return from service and need the guidance and help of instructors to get re-established in farming. (4) Evening classes are provided to meet the needs of adults who are well established in farming. These classes are held for ten or more sessions of at least ninety minutes each and are devoted to one subject problem common to the group. The evening program has had its greatest development in the southern states where much excellent work has been accomplished. Adult classes had a peak enrollment of 219,533 in 1941-42.³ This is estimated to be not more than one third of the nation's need. The financial support given to vocational education in agriculture in the peak years of 1941-42, from state, local, and federal funds combined, was \$18,314,812.07.⁴ Present trends point to a need for twice this sum.

Trade and industrial education. Trade and industrial vocational education requires the same three types of serv-

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ice as agriculture, namely, all-day schools to prepare the new workers for their jobs; part-time classes to help beginning workers make good and advance in their work; and evening classes to help adults keep up to date and make such other adjustments as may be necessary.

Enrollment in all-day preparatory classes presumes that adequate guidance has been given and that the student is to receive training for his chosen vocation. These phases, aided by federal funds, require a minimum of four hours per day of undifferentiated shop practice and technical and related training, or fifty per cent of the day in shop practice and thirty-five per cent for technical and related instruction. The minimum age of enrollment is 14 years, though in practice it tends to be considerably higher. Where a three year trade preparatory course is given to high school students, it usually includes the tenth, eleventh, and twelfth years. When jobs were scarce during the depression years, some states raised their training program up into the post-high school period and thus delayed the age of entering employment. During the war years age for training was lowered and the course shortened so that many students left school for work at sixteen years of age.

The enrollment in all-day trade and industrial classes in the peak year of 1941-42 was 297,451 students in 7,934 schools or classes.⁵ There was a decrease of over 100,000 students during the following year due to war conditions.

Part-time education is intended to supplement the daily employment of young workers. However, since many of these persons are in miscellaneous jobs of a temporary nature, training preparatory for new jobs and training which will serve their general civic and vocational needs may also be given. Part-time classes for persons of school age are usually held during regular working hours. However, they may be held during either day or evening hours for older persons.

During 1941-42 the enrollment in part-time classes was 467,939 students.⁶ In April, 1944, according to estimates by the Children's Bureau of the U.S. Department of Labor, 3,000,000 boys and girls, 14 through 17 years of age, were

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at work. Of this number, approximately 1,500,000 were attending regular or special part-time schools. During the war period, it was apparent that part-time classes probably served only one half of the children 14 to 17 years of age who had left school for full time work.

Evening classes in the trades and industries are intended to supplement the daily work of employed adults. They may be devoted to technical or manipulative activities. Their purposes may be to help the worker in the learning of his trade, to keep him up to date with trade changes, or to prepare him for changes in assignments in closely related activities. Evening classes differ from part-time classes in that they are presumed to be given on the leisure time of the student and are limited to the specific needs of the worker in meeting the requirements of his job.

In 1939-40 the enrollment in evening trade extension classes was 167,908.⁷ During the next two years this number decreased to 52,413. However, during the year 1941-42, there were also enrolled in federally supported war production training classes supplementary to the daily employment of workers, approximately 1,000,000 persons.⁸

Evening class instruction in the trades and industries is capable of almost unlimited development. This field represents one of the largest occupational groups and, for a very large proportion of the workers, present qualifications of workers and frequency of changes in the processes and methods of industry warrant great expansion of evening trade extension education.

Vocational education for homemaking. Training for homemaking is unlike training for other areas where the objective is the making of a living. However, home making is the occupation of a very large percentage of all women and training for the duties of the home has been recognized as vocational education and is provided in the same three forms as in agriculture and the industries.

There were more than 9,200 all-day schools or departments in vocational homemaking with an enrollment of 541,392 students in 1942-43.⁹ In this division of the work the program must include several phases of the home

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maker's responsibility, such as foods, clothing, furnishings, budgets, care of the sick, family relationships, etc. To accomplish such a comprehensive objective, it is necessary to provide a two or three year program and to make provision so that the teacher, in addition to meeting the minimum class schedule of one hour per day, may also be free from other duties one hour per day to consult with her students relative to the planning and execution of home projects, and to visit the homes and see the work in operation. The consultation with parents on plans for the sharing of home responsibilities as a part of the required training is an important part of these visits. Many teachers are employed on a year-round basis so that the special training problems incident to the summer season may be given attention.

Part-time classes in homemaking enrolled 91,494 students in 1941-42 and during the same year 295,724 persons were enrolled in evening classes of whom 12,686 were men.¹⁰ The problems and subject matter of these classes may cover the entire range of responsibilities of home makers, whether male or female, and whether married or single. In the earlier years of vocational education, much emphasis was placed on problems relating to food and clothing. The later developments place emphasis upon child care and development, family relationships, and family budgets, which are just as much responsibilities of fathers as of mothers.

It is probable that in the years to come, with the greater realization of the importance and possibilities of the family unit in the laying of a foundation for mental and physical health and the essentials of character and civic responsibility, adult education in homemaking will become one of the most significant institutions in our society.

Business and distributive education. Distributive education is the most recent addition to the federally aided vocational education program in the United States. It represents a relatively large occupational group, and offers interesting possibilities for development. This program is offered on a part-time or evening basis to persons who are

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employed in stores and other distributive institutions. The combination of work experience and instruction assures functional training of immediate significance on the job and should mean much to the worker, the employer, and the public which buys the service. Even though this work only started in the fall of 1937, in 1942-43 a total of 314,666 persons were enrolled in the program.¹¹

War production training. One of the most interesting functions of vocational education was performed in the emergency training of war workers. Ten years of depression had depleted the ranks of industry and almost completely shut off the supply of newly trained skilled labor, so that when war came skilled labor was in great demand, but was unavailable. As an emergency measure, the public vocational schools were called upon to meet this demand through short intensive training in unit skills which could be turned to war production. Students were drawn from the W.P.A., the files of the United States Employment Service and from local industries. The early demands necessitated three shifts of training of forty-eight hours each per week, through a period of several weeks to several months. Later when surpluses from the labor market were gone, employment age levels were lowered and women were trained for wartime jobs which previously had been held only by men. A total of 5,055,804 persons were given preparatory or supplementary training during the first three years of this work.¹² By the summer of 1943, the war production training program had served its first great objective and it was possible to reduce the program in most places to one shift per day. By 1944, the supply of potential workers for war plants was so far reduced that many classes and departments were entirely closed.

The postwar problem. The postwar problem of vocational education presents many challenges and issues. Some ten million men and women are returning to civilian life and seeking employment. At least one third of these will have had little or no work experience or training for work other than that which they received in military service. War production drew upon many types of industry and greatly inflated these areas. Reconversion will see great

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numbers of war workers displaced and seeking new peace time occupations. War production training was so narrowly specialized that the training of many workers will have to be done again to meet the demands of the postwar labor market. It should also be remembered that in the extremity of the wartime situation employment standards were dropped far below peace time standards.

The providing of guidance and training services for war veterans and displaced war workers will be one of the big tasks of conversion. At the same time there is another group which also must be reckoned with. If war veterans and heads of families are given preference for the available jobs, the million or more youth who left school each year will in all likelihood be without jobs. Sound public policy demands that these students be delayed in entering the labor market and that they be given suitable vocational training so that when they get a job they can start work at better advantage, make more rapid advancement, and earn a wage which will permit them to assume the responsibilities of young adults. The term and age at which this training will be given should be raised or lowered as a means of social control to meet the labor market as it fluctuates in times of depression and of prosperity.

A new apprenticeship will be developed in the postwar period. Many of the skilled crafts have already drawn up plans for a combination of work and schooling which will restore American craftsmanship to the high standard it held when more of our tradesmen were European trained. A schedule of work experience covering the entire trade and supplemented with technical instruction, frequently neglected under our old apprenticeship, will assure the employee a high degree of self respect, the employer a profitable worker, and the public a competent service.

This new apprenticeship will be supervised by committees representing equally organized employees and employers. Public schools will participate in an advisory capacity in planning the course of study, and will provide the supplemental instruction through part-time and evening schools. It has been found that small schools can make only a limited offering in vocational education and that

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among many small schools there is much wasteful duplication. It has also been found that large centers with rich offerings are reluctant or unable to provide training for neighboring areas. This situation is leading to more intelligent planning of the whole vocational training field, so that many more occupations will be served and serious surpluses will not occur. Local needs should be met locally, in so far as may be practicable. A new unit of administration or support is necessary to serve areas overlapping several districts, or even the entire state, and for some occupations a single training center which may serve the needs of several states.

The new vocational teacher will be something more than a good tradesman assigned to a class room. The need of superior men possessed with qualifications beyond the standards of the occupation is already recognized. The vocational school will also be the technical center to which local industry will bring its problems. The high esteem in which vocational teachers will be held will make it possible for even the proudest tradesmen to seek their aid without embarrassment.

This intelligent, highly skilled, technically trained worker must also be master of the teacher's profession before he can meet his obligations. It will be better, if possible, for him to spend a period of months or years in professional training before becoming a vocational teacher. Many will, of necessity, receive their training for teaching while in service. Principles of teaching, problems of learning, class management, school organization, course of study building, all must be mastered before the tradesman can become a good teacher. Finally, the good vocational teacher must keep abreast of the new developments in technology and production if he is to continue to command the respect of industry. This will undoubtedly require his return to industry for short periods of time.

The vocational school will be the answer to industry when new workers are wanted, for the school with its counseling service can make better selection than most employers. Preparatory training will remove the greenness

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or the period of liability from new workers and they will become profitable immediately. The low paid period of learning will be correspondingly shortened.

*Summary*¹³

The following summary is adopted from the *Survey of Vocational Education Service and Needs in Utah* for the Utah State Educational Survey Committee.

Vocational education consists of training people for employment and keeping them employable. Vocational education may include training in skills, technical knowledge, knowledge of employee-employer relations, or problems of supervision and management. It may be had in schools, in employment, by reading, by experience, or through a combination of these sources. It may be in preparation for employment, or supplemental to employment. Vocational education also implies wise selection of an occupation or goal and suitable guidance or aid in securing a job and in making progressive advancement until the learner has acquired satisfactory occupational adjustment. Heretofore it has been largely a function of industry; today the schools are taking an increasing share of responsibility in this field.

The decline of organized and purposeful training in connection with employment has raised four major problems. One is the dilemma of youth who are mature and ready to work, but who lack training or employment skills and knowledge. The other is an impending dilemma in industry in which the present qualified workers are of advanced age and for whose positions there is or has been no program of replacement. The third dilemma will be that of the consuming public which pays the bill but receives inadequate service. The fourth is the great waste in human resources incidental to failure to cultivate productive skills or other capacities which might raise the general standards of living of the individual and society.

The beneficiaries of vocational education are:

a. The individual wage earner, in increased employability and earning power.

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- b. The consumer, in better services for payments made.
- c. The employer, in better employee service for salaries and wages paid.
- d. Parents, in the confidence of the economic independence of their children.
- e. The general public, in the higher standards of citizenship and the lesser hazards of delinquency among people who are qualified and able to earn a satisfactory living.

Underlying philosophy and general principles relating to vocational education:

1. Youth must learn to work.
2. The future economic well-being of the state depends upon the conservation and development of human, as well as physical or natural, resources. This implies training.
3. In the past, industry has trained its own workers. This is becoming increasingly less true and, in some cases, less desirable.
4. The learning of a job may be in employment, in school, or a combination of the two. When each does what it can do best, the school will give the initial or preparatory training and the needed job or technical training to supplement the work experience.
5. Present training programs and resources of business and industry should continue without interference but with cooperation from public training agencies.
6. Public training service should anticipate and supplement training given in private industry.
7. The schools have and should continue to train in occupational fields where:
 - a. It is impracticable to train on the job, as in stenography, typing, etc.
 - b. Extensive general training is a requisite, as in the professions.
 - c. Industry will not provide training, as in competitive and irregular businesses such as small contractors, in building, and small shops with seasonal employment.

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- d. The worker is self employed, as in agriculture and homemaking.
 - e. It is more economical to provide group training than individual tutoring, as in the initial learning period of most skilled vocations.
8. The entire school program should anticipate and contribute to that part of the training of youth which has to do with his economic adjustment and well being.
- a. The fundamental purpose of the elementary and secondary school is acknowledged to be general education of children and youth. This training should assist in the adjustment to a progressive environment and contribute to the same.
 - b. One of the functions of general education is the guidance of youth in the making of a satisfactory choice of an occupation and the planning of a suitable program for attaining this goal. Among other things, we should develop an integrated activity program beginning in the elementary school and continuing through the high school and into adult life.
 - c. In the elementary school, this activity program should give wide experience with materials, tools, and processes common in our environment, and should be so planned as to provide useful information, develop appreciation, give consumer values, and cultivate useful habits and skills.
 - d. In the junior and senior high schools, the practical arts courses should be more specific representations of home, industrial, and business life, but should continue as useful exploratory and self-discovery courses.
 - e. In addition to the occupational information values inherent in the subject matter and method of the regular high school classes, there should be special occupational information courses and group and individual counseling to assist pupils to better understand themselves and to make more intelligent occupational choices.

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- f. Opportunities for bona fide work experience should be provided for youth in the later years of high school so that they might learn the meaning of both manual and mental requirements and be better qualified to select suitable occupations and to better understand what it means to earn a dollar.
- g. Specific occupational training should be given in high school for those vocations which require training for entrance and which may be entered immediately on leaving high school. Agriculture and homemaking are examples. Specific training for all other fields, except for the broad general training outlined above, should be delayed until the later years of high school or until after high school completion. However, high school graduation should not be made a pre-requisite for vocational training. The well-being of the individual and the requirement of the labor market should be the chief determining factors.

9. Specific vocational training should be restricted to those occupations which can absorb the product of a training class and for which it is feasible to provide suitable plant and equipment, work experience, and related training. Certain combinations of trades may be taught together to accommodate needs in occupations where limited numbers are employed.

10. The training of workers in excess of the local or state needs with intention that they may migrate to other areas should be undertaken only when there is a more or less well defined labor market for such additional workers. Such additionally trained persons should not constitute a threat to those already in the local industry. It should be assumed that in periods of sharp demand some workers will find their way into most vocations without the aid of vocational training schools.

11. The numbers to be trained and the centers of training should be determined by local, state, and national surveys and should be regulated with due regard for economy of organization, administration, and operation by the State

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Board for Vocational Education through the use of reimbursement funds.

12. Persons entering occupations which do not require specific preparatory or extensive training in the skills and technology of a trade or other vocation should not be denied training in safety practice, employer-employee relations, and the fundamental economic principles necessary to effective participation in the labor market.

13. Vocational training should be located as near as possible to the age and time of customary entrance into employment.

14. The problem of vocational education is that of training the worker in the theory and practice of a more or less specific job. If the job objectives become too broad, the training ceases to be vocational and becomes general education.

15. The transition from general education to vocational education should be accompanied by guidance and counseling, occupational information, trial experiences, and a period of probation in the selected occupation.

16. When a youth or adult has had the benefit of general education and decides to take training for a vocation, following suitable guidance, etc., his new program of training should be planned and operated in terms of his new objective. A division of interests is likely to result in ineffective training for employment.

17. Vocational education should include preparatory and in-service or extension training. The amount of preparatory training should be determined by the nature and requirement of the occupation.

18. Extension training should be provided during the apprenticeship or learning period of the worker and at intervals thereafter to help the worker keep up with new developments in his occupation.

19. Conditions for effective vocational education include:

- a. An intention or purpose to learn the occupation.
- b. Student capable of reasonably attaining the goal set up and old enough to benefit by the training.
- c. Allotment of time sufficient for the attainment of

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the goal and with a minimum of interference from other activities and interests.

- d. Physical conditions — plant, equipment, etc. — suitable for the training purpose.
 - e. A course of study based on an analysis of the job and with proper balance between theory and practice.
 - f. All training in skills and practice conducted as nearly like the work in industry as possible. The same type of materials, tools, and processes should be used.
 - g. An instructor who is occupationally competent and sufficiently trained in the art and science of teaching.
 - h. A close association between school and industry to insure practical instruction and successful transfer by student from school to work.
20. After preparatory training, the school should share in the responsibility for placement of the student and in his adjustment on the job.
21. Coordination of follow-up service should parallel extension training and should continue until the end of the apprenticeship or learning period.
22. All training and coordination of follow-up service should be carried on in close contact with industry, and should be based upon the needs of employers, employees, and the consuming public. Trade advisory committees representing these interests should be organized and used to assist in this program. Close cooperation should be maintained with the United States Employment Service in the registration and placement of trainees.

Vocational education passed through its pioneering period from 1917 to 1940, and proved its possibilities as a factor in national defense during the great war from 1941 to 1945. Intelligent and wise administration with effective cooperation among the schools, industry, and labor will make vocational education one of the strong forces in the future economic life of the nation.

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NOTES ON THE CHAPTER

1. Federal Security Agency, U. S. Office of Education, Vocational Division, *Digest of Annual Reports of State Boards For Vocational Education, Fiscal Year Ended June 30, 1943* (Washington: Government Printing Office, 1944), pp. 78-79

2. *Ibid.*, p. 79.

3. *Ibid.*, p. 79.

4. *Ibid.*, p. 83.

State funds	\$3,720,087.97
Local	7,697,554.31
Federal	6,897,169.97
Total	<hr/> \$18,314,812.25

5. *Ibid.*, pp. 78-79.

6. *Ibid.*, p. 79.

7. *Ibid.*, p. 79.

8. *Ibid.*, p. 13.

9. *Ibid.* pp. 78-79.

10. *Ibid.* pp. 30, 79, 80.

11. *Ibid.*, p. 79.

12. *Ibid.*, p. 13.

13. Adapted from *Survey of Vocational Education Service and Needs in Utah* for the Educational Survey Committee by Irvin S. Noal, Supervisor of Industrial Arts and Occupational Education, Salt Lake City Public Schools, 1940, (mimeographed).

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